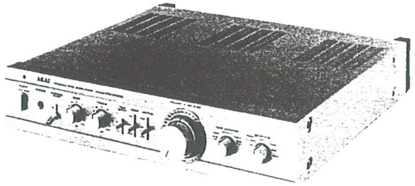
SERVICE MANUAL

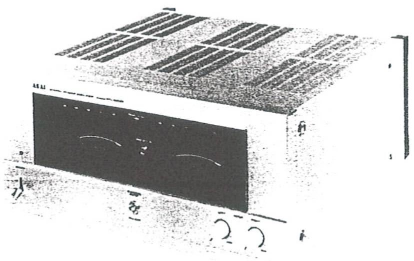
PS-200C
PS-120M
MODEL PS-200M

AKAI

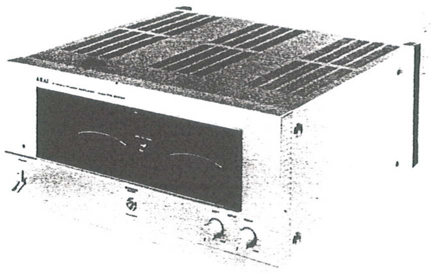
ALSO APPLICABLE TO BLACK PANEL MODEL



PS-200C



PS-120M



PS-200M

STEREO PRE-AMPLIFIER
and
STEREO POWER AMPLIFIERS

PS-200C
PS-120M
MODEL PS-200M

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SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. TECHNICAL DATA

1. MODEL PS-200C

INPUT SENSITIVITY/IMPEDANCE/ SIGNAL TO NOISE RATIO (IHF "A")	
PHONO 1 (MM)	2.5 mV/47 kohms/88 dB
PHONO 2 (MM)	2.5 mV/33, 47, 100 kohms/88 dB
PHONO 3 (MC)	0.07 mV/10 ohms/72 dB
TUNER	150 mV/47 kohms/106 dB
AUX 1/2	150 mV/47 kohms/106 dB
TAPE PLAY 1/2	150 mV/47 kohms/106 dB
OUTPUT LEVEL/IMPEDANCE	
TAPE REC 1/2	150 mV/600 ohms
OUTPUT	1.5V/600 ohms
RATED LOAD IMPEDANCE	1 kohms
PHONO MAX. INPUT LEVEL (1 kHz)	
PHONO 1/2	450 mV
PHONO 3	10 mV
FREQUENCY RESPONSE	
TUNER/AUX 1 & 2/TAPE PLAY 1 & 2	0.8 Hz to 100 kHz ±1 dB
PHONO 1/2 (RIAA CURVE DEVIATION)	30 Hz to 15 kHz ±0.2 dB
PHONO 3 (RIAA CURVE DEVIATION)	30 Hz to 15 kHz ±0.2 dB
TOTAL HARMONIC DISTORTION (20 Hz to 20 kHz)	
TUNER/AUX 1 & 2/TAPE PLAY 1 & 2	0.005% at output 1V
(VOLUME MAX.)	0.002% at output 7V
	0.005% at output 15V
PHONO 1/2 (VOLUME MAX.)	0.005% at output 15V
(VOLUME −20 dB)	0.005% at output 1.5V
PHONO 3 (VOLUME MAX.)	0.005% at output 15V
(VOLUME −20 dB)	0.005% at output 1.5V
TONE CONTROL BASS	±9 dB at 100 Hz
TREBLE	±9 dB at 10 kHz
SUBSONIC FILTER	12 dB/oct. at 18 Hz
CHANNEL SEPARATION (AUX 1/2)	70 dB (Shorted Circuit)
POWER REQUIREMENTS	120V, 60 Hz for U.S.A. and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V/220V/240V, 50/60 Hz internally switchable
DIMENSIONS	440(W) x 90(H) x 457(D)
WEIGHT	7.5 kg

2. MODEL PS-120M

RATED POWER OUTPUT	130 watts per channel, min. RMS, at 8 ohms from 20 Hz to 20 kHz with no more than 0.008% THD.
TOTAL HARMONIC DISTORTION	0.008% at rated power output
INTERMODULATION DISTORTION	0.008% at rated power output
SIGNAL TO NOISE RATIO (IHF "A")	115 dB
RESIDUAL NOISE (IHF "A"/8 OHMS)	0.2 mV
INPUT SENSITIVITY/IMPEDANCE	1V/47 kohms
DAMPING FACTOR (IHF)	350
REQUIRED LOAD IMPEDANCE	4 ohms to 16 ohms
FREQUENCY RESPONSE	DC to 100 kHz ±0.5 dB
SUBSONIC FILTER	12 dB/oct. at 18 Hz
POWER REQUIREMENTS	120V, 60 Hz for U.S.A. and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110/220/240V, 50/60 Hz internally switchable
DIMENSIONS	44(W) x 198(H) x 459(D) mm
WEIGHT	30 kg

3. MODEL PS-200M

RATED POWER OUTPUT	220 watts per channel, min. RMS, at 8 ohms from 20 Hz to 20 kHz with no more than 0.008% THD.
TOTAL HARMONIC DISTORTION	0.008% at rated power output
INTERMODULATION DISTORTION	0.008% at rated power output
SIGNAL TO NOISE RATIO (IHF "A")	115 dB
RESIDUAL NOISE (IHF "A"/8 OHMS)	0.2 mV
INPUT SENSITIVITY/IMPEDANCE	1V/47 mV
DAMPING FACTOR (IHF)	350
REQUIRED LOAD IMPEDANCE	4 ohms to 16 ohms
FREQUENCY RESPONSE	DC to 100 kHz ±0.2 dB
SUBSONIC FILTER	12 dB/oct. at 18 Hz
POWER REQUIREMENTS	120V, 60 Hz for U.S.A. and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110/220/240V, 50/60 Hz internally switchable for other countries.
DIMENSIONS	440(W) x 198(H) x 459(D) mm
WEIGHT	30 kg

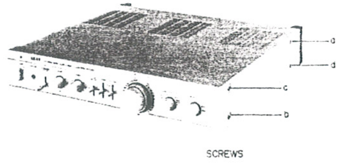
*** For improvement purposes, specifications and design are subject to change without notice.**

II. DISMANTLING OF UNIT

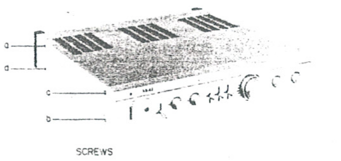
1. MODEL PS-200C

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

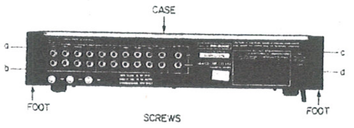
1


a
d
c
b
SCREWS

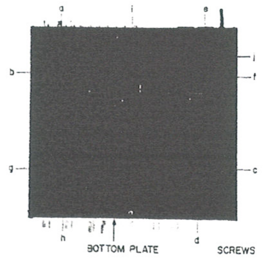
2


a
d
c
b
SCREWS

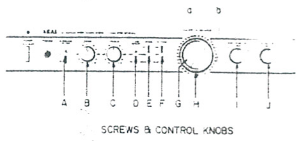
3


CASE
a
b
c
d
FOOT
SCREWS
FOOT

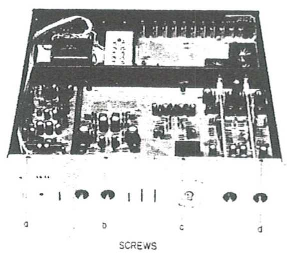
4


a
i
e
b
j
f
g
c
k
h
d
BOTTOM PLATE
SCREWS

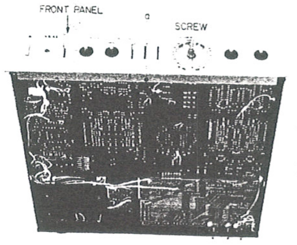
5


a
b
A
B
C
D
E
F
G
H
I
J
SCREWS & CONTROL KNOBS

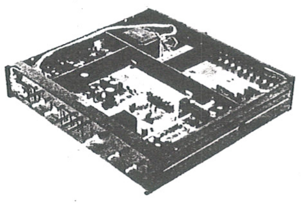
6


a
b
c
d
SCREWS

7

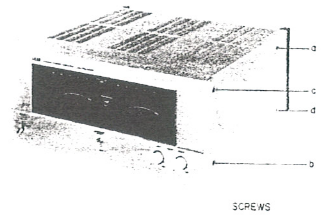

FRONT PANEL
a
SCREW

8

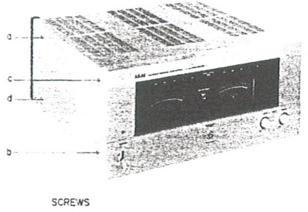


2. MODEL PS-120M (and PS-200M)

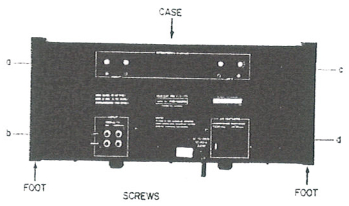
1


a
c
d
b
SCREWS

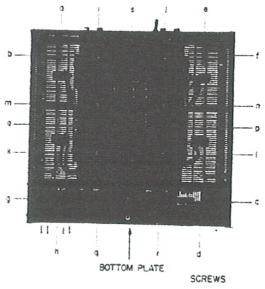
2


a
c
d
b
SCREWS

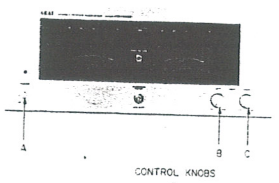
3


CASE
a
c
b
d
FOOT
SCREWS
FOOT

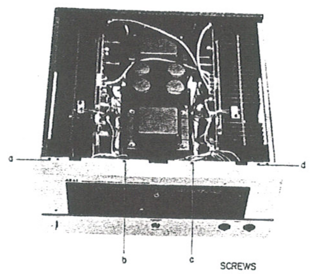
4


a
s
i
e
b
f
m
o
n
p
k
l
g
c
h
q
r
d
BOTTOM PLATE
SCREWS

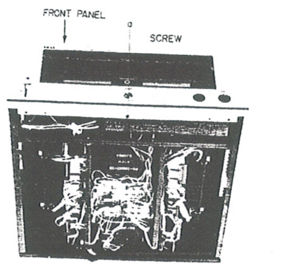
5


A
B
C
CONTROL KNOBS

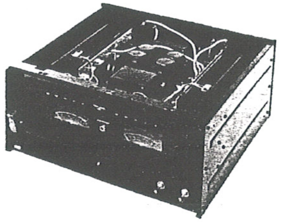
6


a
d
b
c
SCREWS

7


FRONT PANEL
a
SCREW

8



III. CONTROLS

1. MODEL PS-200C

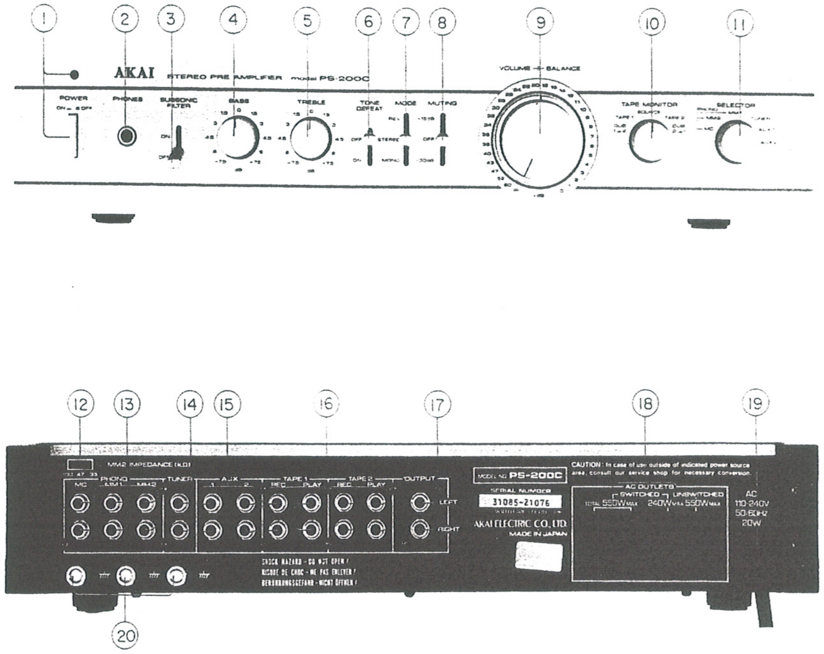

1
2
3
4
5
6
7
8
9
10
11
AKAI
STEREO PRE AMPLIFIER model PS-200C
12
13
14
15
16
17
18
19
MODEL NO. PS-200C
AKAI ELECTRIC CO., LTD.
MADE IN JAPAN
20

Fig. 1 Controls (PS-200C)

1. POWER SWITCH AND INDICATOR
2. HEADPHONE JACK
3. SUBSONIC FILTER
4. BASS TONE CONTROL
5. TREBLE TONE CONTROL
6. TONE SWITCH
7. MODE SWITCH
8. MUTING SWITCH
9. VOLUME AND BALANCE CONTROLS
10. TAPE MONITOR SWITCH
11. INPUT SELECTOR
12. CARTRIDGE IMPEDANCE SWITCH (MM2 Only)
13. PHONO TERMINALS
14. TUNER TERMINALS
15. AUX TERMINALS (2 set supplied)
16. TAPE 1 AND TAPE 2 SYSTEM REC/P.B TERMINALS
17. OUTPUT
18. EXTRA AC OUTLETS (Some models are not equipped with this facility)
19. AC POWER CORD (Some models equipped with AC inlet)
20. GROUND TERMINALS FOR PHONO

2. MODEL PS-120M (and PS-200M)

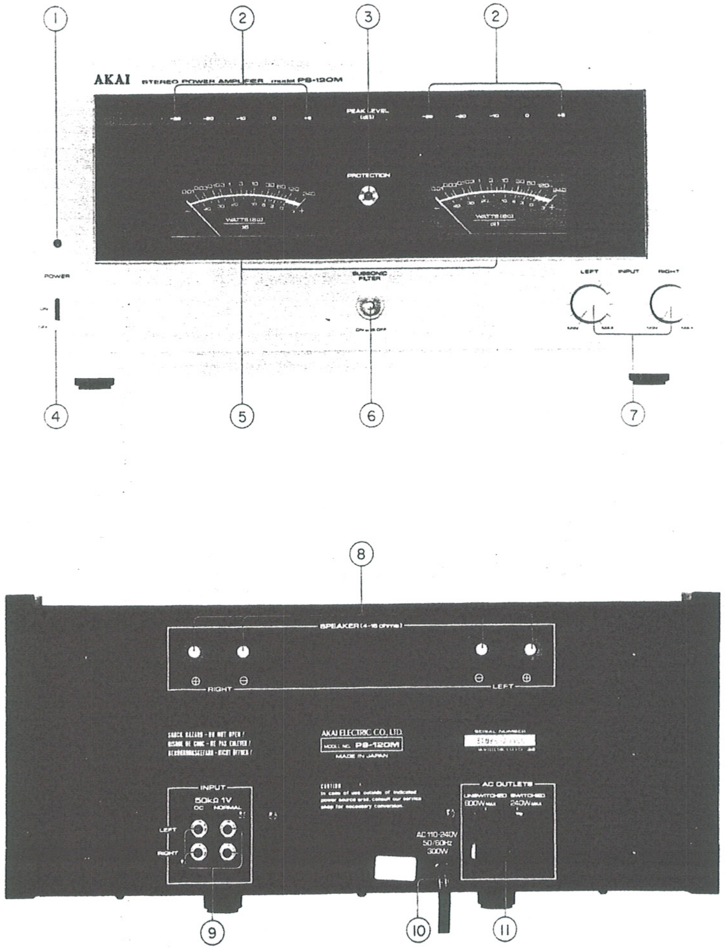

1
2
3
2
AKAI
STEREO POWER AMPLIFIER model PS-120M
PEAK LEVEL
PROTECTION
4
5
6
7
8
SPEAKER
RIGHT
LEFT
AKAI ELECTRIC CO., LTD.
MODEL NO. PS-120M
MADE IN JAPAN
INPUT
9
10
11

Fig. 2 Controls (PS-120M)

1. POWER INDICATOR
2. PEAK LEVEL LEDS (Light Emitting Diodes)
3. PROTECTION INDICATOR
4. POWER SWITCH
5. LEFT AND RIGHT CHANNEL PEAK LEVEL METERS
6. SUBSONIC FILTER
7. LEFT AND RIGHT INPUT LEVEL CONTROLS
8. SPEAKER SYSTEM TERMINALS
9. INPUT JACKS
10. POWER CORD
    (Some models have power cord inlets instead)
11. AC OUTLETS
    (Some models are not equipped with this facility)

IV. PRINCIPAL PARTS LOCATION

1. MODEL PS-200C

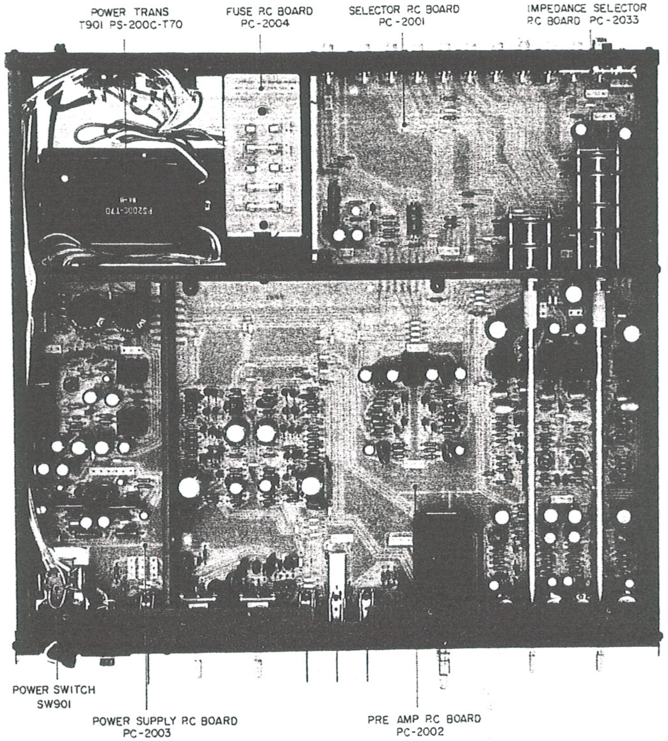

POWER TRANS
T901 PS-200C-T70
FUSE P.C BOARD
PC-2004
SELECTOR P.C BOARD
PC-2001
IMPEDANCE SELECTOR
P.C BOARD PC-2033
POWER SWITCH
SW901
POWER SUPPLY P.C BOARD
PC-2003
PRE AMP P.C BOARD
PC-2002

Fig. 3 Top View

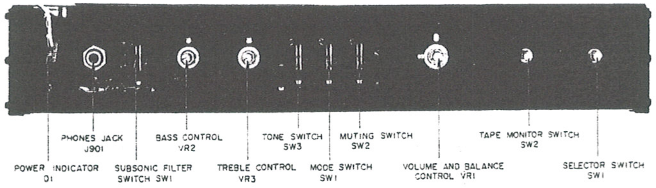

PHONES JACK
J901
BASS CONTROL
VR2
TONE SWITCH
SW3
MUTING SWITCH
SW2
TAPE MONITOR SWITCH
SW2
POWER INDICATOR
D1
SUBSONIC FILTER
SWITCH SW1
TREBLE CONTROL
VR3
MODE SWITCH
SW1
VOLUME AND BALANCE
CONTROL VR1
SELECTOR SWITCH
SW1

Fig. 4 Front View

2. MODEL PS-120M

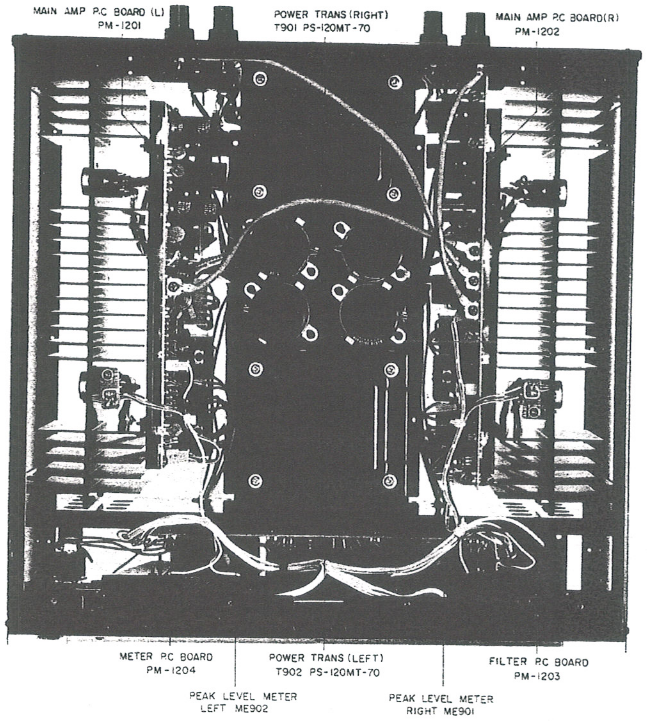

MAIN AMP P.C BOARD (L)
PM-1201
POWER TRANS (RIGHT)
T901 PS-120MT-70
MAIN AMP P.C BOARD (R)
PM-1202
METER P.C BOARD
PM-1204
POWER TRANS (LEFT)
T902 PS-120MT-70
FILTER P.C BOARD
PM-1203
PEAK LEVEL METER
LEFT ME902
PEAK LEVEL METER
RIGHT ME901

Fig. 5 Top View

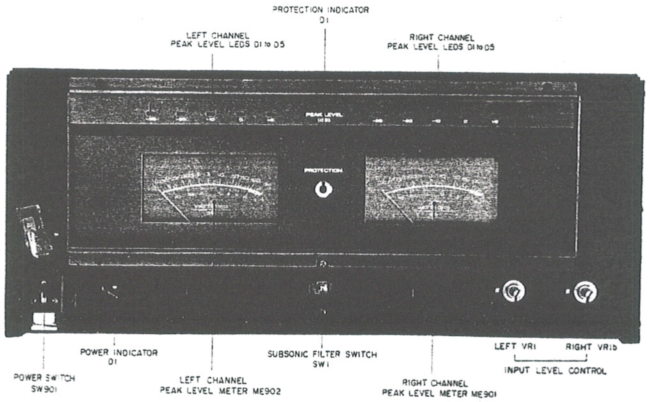

PROTECTION INDICATOR
D1
LEFT CHANNEL
PEAK LEVEL LEDS D1 to D5
RIGHT CHANNEL
PEAK LEVEL LEDS D1 to D5
PEAK LEVEL
POWER INDICATOR
D1
SUBSONIC FILTER SWITCH
SW1
LEFT VR1
RIGHT VR1b
INPUT LEVEL CONTROL
POWER SWITCH
SW901
LEFT CHANNEL
PEAK LEVEL METER ME902
RIGHT CHANNEL
PEAK LEVEL METER ME901

Fig. 6 Front View

3. MODEL PS-200M

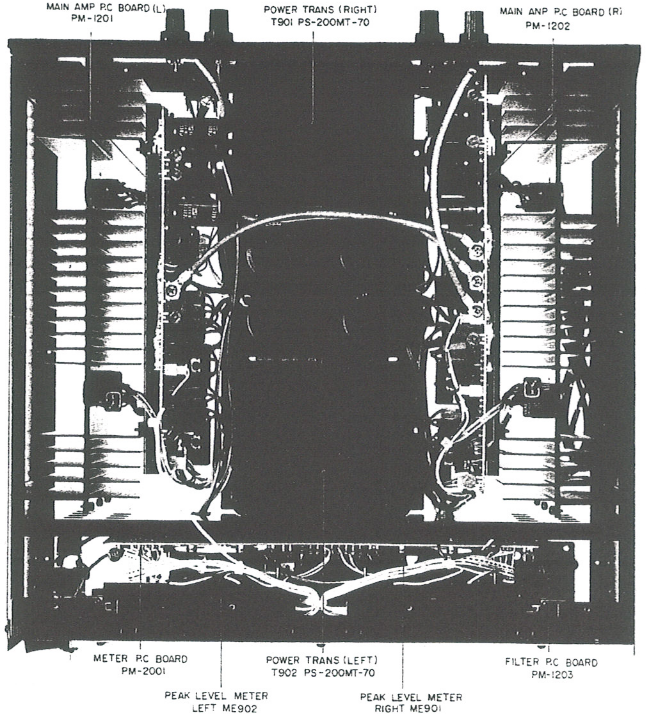

MAIN AMP P.C BOARD (L)
PM-1201
POWER TRANS (RIGHT)
T901 PS-200MT-70
MAIN AMP P.C BOARD (R)
PM-1202
METER P.C BOARD
PM-2001
POWER TRANS (LEFT)
T902 PS-200MT-70
FILTER P.C BOARD
PM-1203
PEAK LEVEL METER
LEFT ME902
PEAK LEVEL METER
RIGHT ME901

Fig. 7 Top View

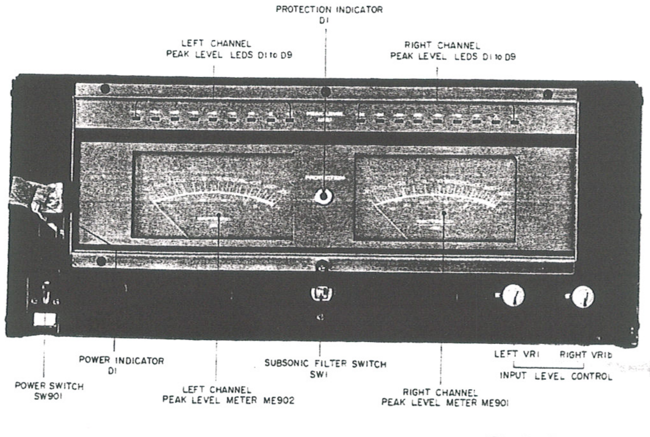

PROTECTION INDICATOR
D1
LEFT CHANNEL
PEAK LEVEL LEDS D1 to D9
RIGHT CHANNEL
PEAK LEVEL LEDS D1 to D9
POWER INDICATOR
D1
POWER SWITCH
SW901
LEFT CHANNEL
PEAK LEVEL METER ME902
SUBSONIC FILTER SWITCH
SW1
RIGHT CHANNEL
PEAK LEVEL METER ME901
LEFT VR1
RIGHT VR1b
INPUT LEVEL CONTROL

Fig. 8 Front View

V. CIRCUIT OPERATION

1. MODEL PS-200C

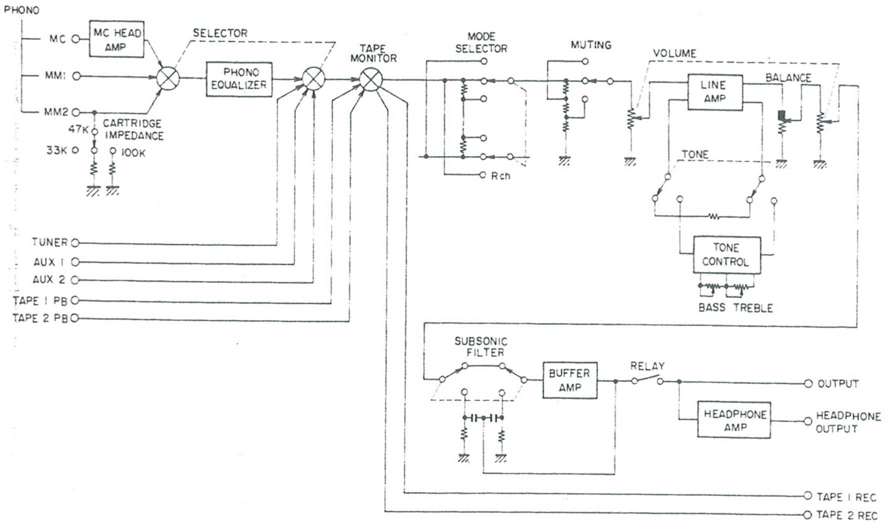

PHONO
MC
MM1
MM2
MC HEAD AMP
SELECTOR
PHONO EQUALIZER
TAPE MONITOR
MODE SELECTOR
MUTING
VOLUME
LINE AMP
BALANCE
47K
CARTRIDGE IMPEDANCE
33K
100K
Rch
TONE
TONE CONTROL
BASS TREBLE
TUNER
AUX 1
AUX 2
TAPE 1 PB
TAPE 2 PB
SUBSONIC FILTER
BUFFER AMP
RELAY
OUTPUT
HEADPHONE AMP
HEADPHONE OUTPUT
TAPE 1 REC
TAPE 2 REC

Fig. 9 Block Diagram (L Channel Only)

1) MC Head Amp

MC PHONO input's reference input is a low 0.07 mV. Therefore, a gain of approximately 30 dB at 1 kHz is obtained from the Head Amp to make the Equalizer Amp input equal to the MM type input.

The circuit is made up of high h_{fe}, low noise transistors connected in parallel to obtain high gain in the first stage. The pure complimentary push-pull last stage uses transistors with good linearity.

The dynamic range of the Head Amp deserves attention. The Head Amp is a flat amp with no RIAA characteristics, unlike the Equalizer Amp. The output of the cartridge increases with frequency with 1 kHz as reference. For this reason, even if sufficient dynamic range is obtained in the low and mid frequencies, there may be clipping in the high frequency. It is therefore necessary that the Head Amp does not saturate at the level at least where clipping occurs in the Equalizer Amp. The maximum allowable input voltage of this model is 10 mV at 1 kHz.

2) Equalizer Amp

The circuit is composed of a differential amplifier with cascade connected low noise one-chip dual FET in the first stage. Also, by using a constant current power source as a common source, CMRR (Common Mode Rejection Ratio) is improved. Distortion is also circumscribed by the differential amplifier in the next stage. The last stage is a Darlington connected pure complimentary push-pull circuit.

The NFB type equalizer features a stable frequency response and receives very little influence from heat, etc. By using a high precision part for the equalizer element, RIAA deviation is held within ±0.2 dB from the standard value with frequency response range of 30~15 kHz for this model.

The circuit operation of the differential amplifier in the first stage is described below.

The circuit is shown in Fig. 10. TR1a is connected in series to TR2 and TR1b is connected in series to TR3. Also a constant voltage is applied to the common gate of TR2 and TR3 from the resistance

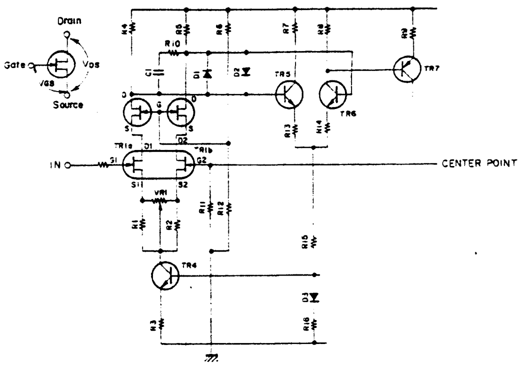


Fig. 10 Input Circuit of The Differential Amplifier

split of R6 and R12 regardless of the input signal.
The circuit is cascade connected in this way and a one-chip dual FET is used for TR1.
There circuits have advantages such as DC drift decrease, current noise decrease and improvement in frequency response characteristics.
Then the gate potential of TR1a increases, the impedance between TR1a drain and source decreases, and the drain current increases. Since TR1 is mode up of dual FET differential amplifier, TR1b drain current decreases proportionately to TR1a drain current increase. This causes TR1a drain potential to decrease and TR1b drain potential to increase. Since TR2 and TR3 gate potentials are constant, TR2 and TR3 V_{GS} vary due to changes in TR1a and TR1b drain potentials. TR2 drain current increases and TR3 drain current decreases due to this variance.
When the gate potential of TR1a decreases, the impedance between TR1a drain and source increases and the drain current decreases. TR1b drain current thereby increases proportionately to TR1a decrease. TR1a drain potential increases and TR1b drain potential decreases as a result. On the other hand TR2 V_{GS} decreases and TR3 V_{GS} increases to increase the TR2 drain potential by TR2 drain current decrease and to decrease the TR3 drain potential by the TR3 drain current increase.
In other words, TR1a gate signal input appears in reverse phase, equal voltage signal at R4 and R5 load resistors. This signal enters between the TR5 and TR6 bases as differential amplifier inputs of those two. By this, the output between the two drains in the first stage becomes a push-pull operation, and the distortion is minimized.
Since the circuit structure is two differential amplifiers used together, total CMRR is a product of the first stage CMRR and the second stage CMRR.
Even if there is an increase in the drain current, or an in-phase input due to noise, etc., any collector potential change is held down to result in a stable center potential and a decreased DC drift.
The output from the second stage differential amplifier is an unbalanced type taken out only from the TR6 collector. It is phase inverted in the next stage and pulls out the equalizer amplifier output signal as a push-pull circuit.

3) Line Amplifier

This circuit is almost exactly the same circuit-constructed flat amplifier as the equalizer amplifier without the NFB equalizer circuit. By equipping interlocking volumes on the input and the output sides, S/N ratio is improved when the volume is turned low.

4) Output Circuit

The output from the line amplifier passes the balance control, volume control, subsonic filter switch and is supplied to the buffer amplifier.
The buffer amplifier is an impedance conversion circuit used to prevent crossing between the circuit. Consequently, it requires high input impedance, low output impedance, no distortion, wide dynamic range, flat frequency response characteristics and low noise, etc. These are fulfilled in this model by using the pure complimentary SEPP type emitter follower circuit.

2. MODEL PS-120M and PS-200M

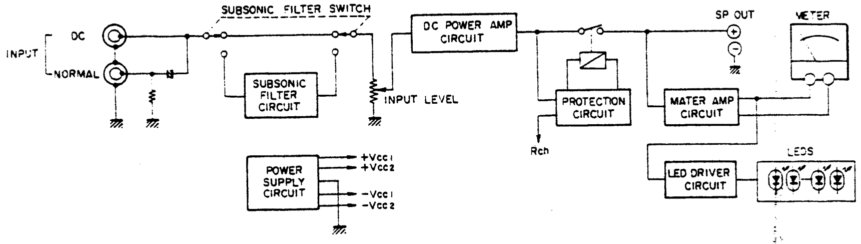


Fig. 11 Block Diagram

1) Input Circuit

These models are equipped with two terminals, DC and NORMAL, for input. By using the "DC" input, they become DC amplifiers without input coupling condenser. By using the "NORMAL" input, the coupling condenser cuts off the DC part. Also when the Subsonic Filter Switch is turned ON, the low range of 18 Hz or less is reduced by 12 dB/oct.

2) DC Power Amplifier Circuit

The signal from the input circuit passes the Input Level Control and enters the DC amplifier system's Power Amplifier Input. To explain what is meant by the DC amplifier system:
Condensers are used in circuits to obtain certain characteristics for DC operation, AC gain, and impedance when making an amplifier. However, condenser reactance increases in reverse proportion to the signal frequency and ultra low signals cannot be handled in AC. In circuit using many condensers, condenser reactance can be thought of as 0 in the midrange signals but in the ultra low range, condenser reactance is thought of as unlimited. When the midrange and the ultra low range equivalent circuits are compared; the gain, input and output impedances at each stage, and distortion, etc., changes widely.
In DC amplifiers, the condensers in the circuits, as above, are all removed. The same amplitude and impedance, etc., can be obtained in DC or AC in this design. In addition, the first stage differential transistor, FET pairing, and temperature balance, etc., becomes absolute necessity in the DC amplifiers.
Next, although circuit-constructed, cascade connected differential amplifier used in PS-200C is used for the first stage. The voltage gain is obtained from the transistor differential amplifier in the next stage, and the input to the next stage is obtained from each collector.
The signals from the TR10 and TR11 collectors pass the pure complimentary push-pull TR19 and 20 and TR21 and 22, respectively. They are current amplified by the parallel push-pull power transistors and connected to SP OUT.

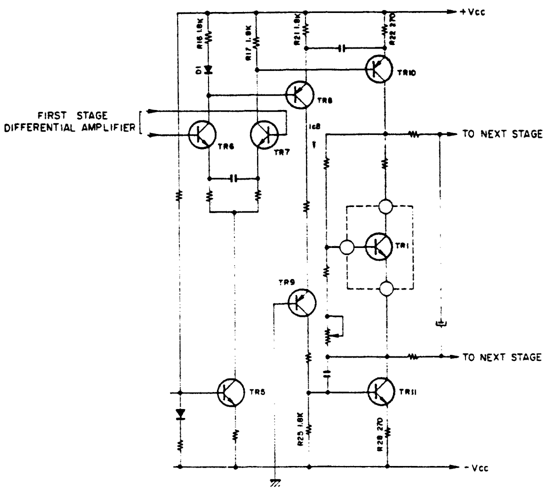


Fig. 12 Pre Driver Circuit

3) Pre Driver Circuit (Refer to Fig. 12)

The negative phase signals from the first stage differential amplifier (refer to PS-200C circuit explanation) enter the bases of TR6 and TR7 and the negative phase outputs from each collector become base inputs to the transistors of the next stage.

Although the signal from the TR7 collector becomes the base input of TR10, the signal from the TR6 collector must become TR11 base input to have the push-pull circuitry. Voltage between two sides of R17 (1.8 k) is supplied to TR10 base bias. TR8 is biased by voltage between two sides of R16 (1.8 k) + D1 and is supplied with IC8. And since V_{BE} of TR8 is approximately the same voltage as the D1 voltage drop, R21 (1.8 k) is supplied with the same voltage as the voltage between two sides of R16 = R17 (1.8 k).

This IC8 passes the cascade connected TR9 and flows to R25 (1.8 k).

Since R21 and R25 resistor values are equal, TR11 base is supplied with an equal potential bias as the TR10 base. As explained above, TR7 collector signal enters the TR10 base, TR6 collector signal appears in the voltage between two sides of R25 as a change in IC8 and enters TR11 base after which it is passed to the next stage by the push-pull circuitry.

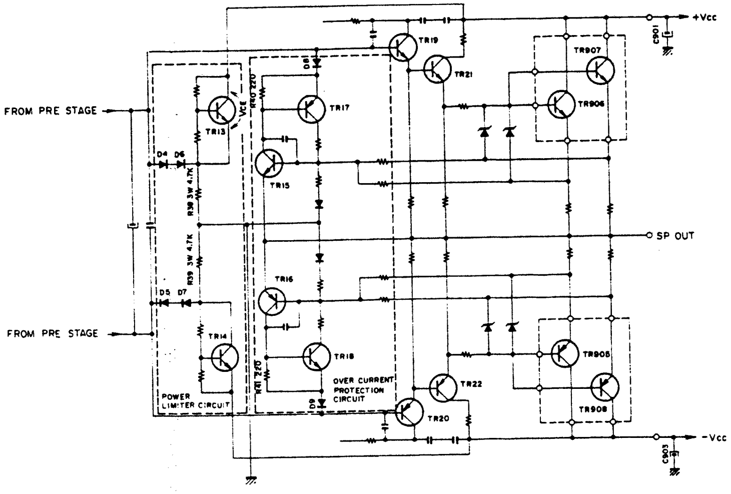


Fig. 13

4) Over Current Protection Circuit (Refer to Fig. 13)

When the speaker terminal of the power amplifier is shortcircuited or when the load impedance equivalently becomes too low due to too many speaker connections, the output stage transistor breaks down because of excessive power consumption by the transistors or of excess current. The circuit shown in Fig. 13 composed of TR15 and 17 and TR16 and 18 prevents this damage. TR15 and 17 circuit operates for excessive + signal current and TR16 and 18 operate for excessive – signal.

The case when there is a current overflow of + signal will be explained here. Ordinarily, TR15 base potential and the emitter potential are almost equal and TR15 is OFF. When the load RL becomes lower than the power amplifier's specified load or is shortcircuited, excess current flows to the output stage transistor. This causes the base potential of TR15 to become greater than the emitter potential and TR15 turns ON.

When this happens, the signal to TR19 passes D8 and R40 and is dropped to the center (node) point. The output stage transistor, therefore, stops receiving the signal and the excess current does not flow.

Also when TR15 is turned ON, TR17 base potential is decreased to turn on TR17. TR15 base potential is thereby further increased to make the operation fullproof. Also when TR15 is turned ON, relay RL1 (see Fig. 14) turns OFF and the power amplifier output is disconnected from the speaker.

TR16 and 18 operate in the same way for excess signal current to protect the output stage transistor.

5) Power Limiter Circuit (Refer to Fig. 13)

This circuit is to protect the output stage transistor at excessive input. When the input signal voltage to TR19 and TR20 exceeds a certain point, it is limited and prevents excessive input to the output stage transistor. Only the case of positive signal input will be explained here.

There is very little voltage amplification because TR19, TR21, and the output stage transistor are emitter followers at current amplification. In other words, the TR19 base is supplied with the same voltage as speaker output voltage. So the maximum voltage to appear at the output is $+V_{CC}$. Signals with voltage of no less than approximately 2.1V or 3 diode voltage drops less than this $+V_{CC}$ are limited by TR13, D4, and D6.

To explain the circuit operation, first, $+V_{CC}$ is added to the TR13 collector. The voltage between TR13 collector and emitter has a potential of 5 diode voltage drops or approximately 3.5V according to the design, and a voltage 3.5V lower than C901 positive voltage appears at the emitter.

Next, taking a look at the signal voltage, we find that when the value after subtracting the voltage drops of D4 and D6 (approximately 0.7V × 2) is greater than TR13 emitter potential, the signal passes R38 and is grounded to be limited. By the above operation, when there is a voltage no less than the value approximately 2.1V (Voltage drops of D4 and D6 subtracted from TR13 V_{CE}) less than $+V_{CC}$, the signal passes D4→D6→R38 and is grounded to limit the output.

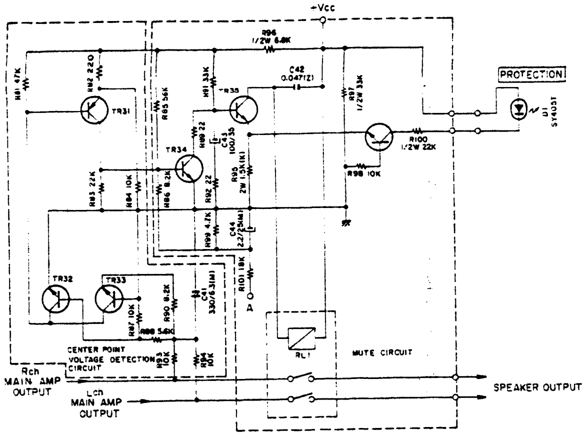


Fig. 14

6) **Mute Circuit (Refer to Fig. 14)**

When the power of the amplifier is turned on or off, pop and distortion noise generate to damage the speakers or produce unpleasant sound. The mute circuit of Fig. 14 prevents these.

When the power is ON, point A is supplied with a diode rectified negative pulse current and charges C44 through R101. While C44 is being charged, TR34 base is supplied with the potential from +V_{CC} and turns ON. On the otherhand, TR35 base potential decreases to turn OFF. At this condition since TR35 collector current does not flow to R95, TR36 base potential becomes higher than the emitter potential and TR36 is turned ON. When TR36 is turned ON, collector current flows through R100 and R95 and the PROTECTION INDICATOR D1 illuminates. When C44 is finished being charged, TR34 base becomes negative potential and TR34 turns off. Then the base current of TR35 turns on TR35 after charging the time constant circuit. Relay RL1 is driven by the TR35 collector current and the main amplifier output is connected to the speaker output. In this conditions, TR36 emitter potential becomes higher than the base potential so that TR36 turns OFF and the Protection Indicator D1 lights off.

When the power is OFF, point A is not supplied with the pulse current.

The C44 charge, therefore, discharges through R99 and raises the base potential of TR34 to turn ON TR34. TR35 base potential then decreases to turn off TR35 and the relay RL1 also turns off. When the TR35 collector current stops flowing, TR36 base potential becomes higher than the emitter potential and turns ON to light the PROTECTION INDICATOR D1. However, since the potential of +V_{CC} gradually decreases, TR36 base potential decreases to turn OFF and the PROTECTION INDICATOR D1 also turns off.

7) **Center (node) Point Voltage Detection Circuit (Refer to Fig. 14)**

When there is DC potential at the power amplifier's speaker output terminal, the DC will flow to the speaker in the case of OCL circuitry and damage the speakers. For this reason, when there is a DC potential, a circuit is necessary to detect the potential to turn off the mute circuit relay RL1 and cut off the speaker from the power amplifier output. This circuit is called a center (node) point voltage detection circuit and is shown in Fig. 14.

Ordinarily the center (node) point is 0V and TR32 and 33 are OFF. C41 is a non-pole condenser and is grounded that there is no effect from the AC signal. But when there is a positive DC potential at the center point, that potential positively charges C41 on the side opposite to the ground. Consequently, TR32 is base biased and is turned ON. TR31 base becomes ground potential and TR31 turns ON. When TR31 turns ON, TR34 base potential is increased, TR34 turns ON, and TR35 base potential decreases. When TR35 is turned OFF, relay RL1 turns OFF and the power amplifier output is disconnected from the speakers.

Next, if there is a negative DC potential at the center point, that potential negatively charges C41 on the opposite side to the ground and TR33 emitter potential becomes lower than the base potential to turn ON TR33. Accordingly, TR31 base becomes ground potential and relay RL1 turns off as mentioned earlier and the power amplifier is cut off from the speaker.

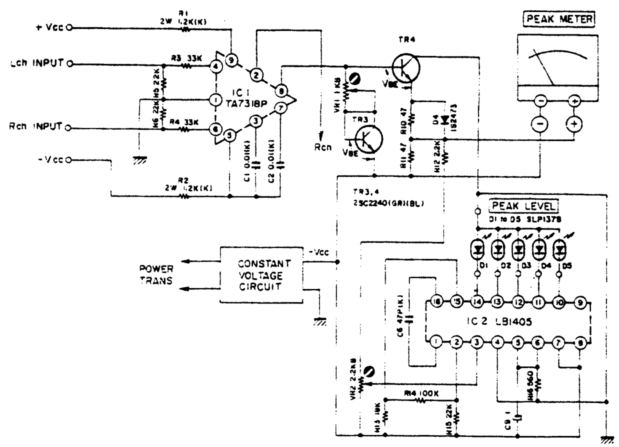


Fig. 15 Meter Amplifier and LED Drive Circuit

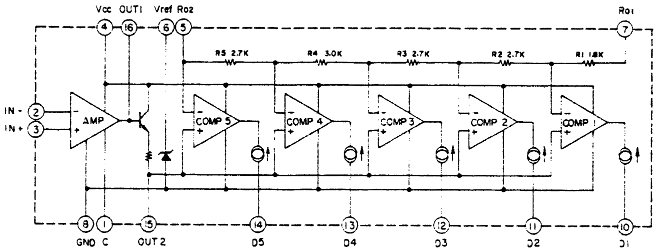


Fig. 16 LB1405 Block Diagram

8) **Meter Amplifier and LED Drive Circuit (Refer to Fig. 15, 16)**

The signal from the speaker output enters the input of Meter Amplifier IC1 and comes out of terminals 2 and 8 as output. The peak meter used in these models requires approximately 40 mA of electric current. Since the output current from IC1 is not enough, the output from IC1 is current amplified by the TR4 emitter follower circuit to drive the meter. Also because of the large current, constant voltage circuit, TR1 and TR2, supplies the current. TR3 equalizes TR4 V_{BE} and TR3 V_{BE} and equalizes V_{BE} changes due to base current changes for good linearity to the meter input.

D4 assists in obtaining good linearity of the meter itself. When the signal voltage increases to a certain point, D4 provides continuity to increase the meter drive current and compensates the linearity.

IC LB1405 is used for the LED drive. Fig. 16 shows the block diagram. The signal entering terminal 3 is amplified and is passed to each comparator. A resistance divided constant voltage for each level is supplied to one side of the comparators. The IC compares each input signal with this constant voltage and detects it to drive the LED of each level.

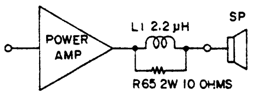

POWER AMP
L1 2.2 μH
SP
R65 2W 10 OHMS

Fig. 17

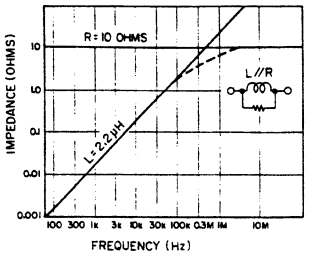


Fig. 18

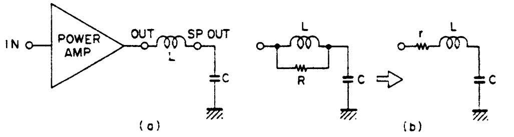

IN
POWER AMP
OUT
SP OUT
L
C
(a)
L
R
C
r
L
C
(b)

Fig. 19

9) L1 and R65 Operation (Refer to Fig. 17 to 19)

As shown in Fig. 17, most amplifiers have an inductance or a resistor between the output and the speaker. The inclusion has several advantages.

Considering the negative effect when L and R is inputted, we find that the power amplifier output impedance increases higher the frequency in the case of inductance. This negative effect is shown in Fig. 18. However, as can be seen in the figure, the effect of the inductance is merely 0.014 ohm at 1 kHz and 1.4 ohm even at 100 kHz, and is hardly a problem.

Considering the positive side, we find that the impedance seen from the load terminal becomes extremely low at high frequencies due to such factors as speaker cord capacitive components and L-C networks for speaker frequency divider. However, the load impedance seen from the power amplifier output can maintain a value above a certain level due to the effect from L and R added in series to the load terminal.

Also the addition of L and R serves as a buffer when the power amplifier begins high range oscillation as a result of poor grounding of the Pin jack or phase difference caused by capacitance load at the output stage, etc. When something with a capacitance component is connected to the load in this way, a series resonance circuit is constructed as in Fig. 19(a) and the load impedance becomes 0 at the resonance point. But because of the operation of R connected parallel to L, the resonance circuit is damped and looks as if a pure resistor has been added equivalently as in Fig. 19(b), and the load impedance does not become zero even at the resonance point.

VI. LEVEL DIAGRAM

1. MODEL PS-200C

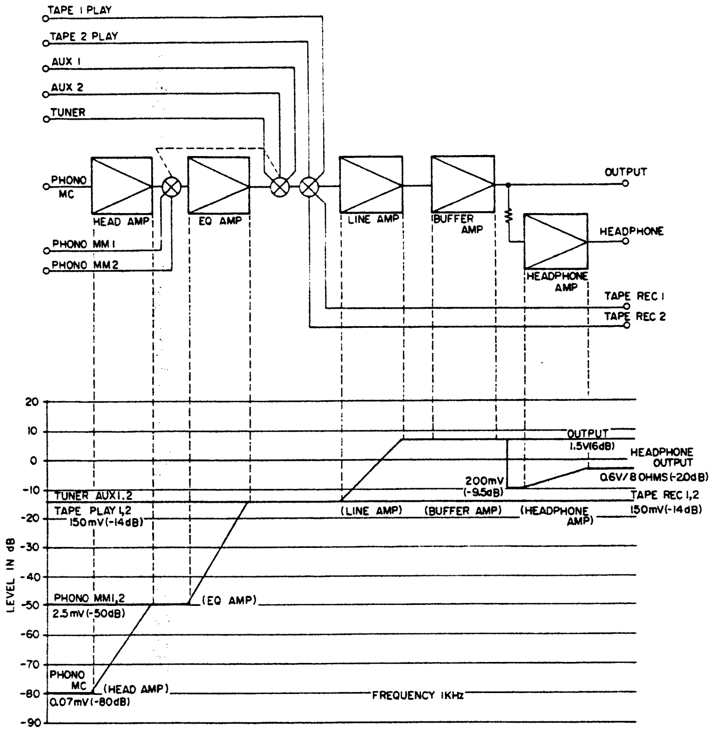

TAPE 1 PLAY
TAPE 2 PLAY
AUX 1
AUX 2
TUNER
PHONO MC
HEAD AMP
PHONO MM 1
PHONO MM 2
EQ AMP
LINE AMP
BUFFER AMP
OUTPUT
HEADPHONE
HEADPHONE AMP
TAPE REC 1
TAPE REC 2
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
LEVEL IN dB
TUNER AUX1.2
TAPE PLAY 1,2
150mV(-14dB)
PHONO MM1,2
2.5mV(-50dB)
PHONO MC
0.07mV(-80dB)
(HEAD AMP)
(EQ AMP)
(LINE AMP)
(BUFFER AMP)
(HEADPHONE AMP)
OUTPUT
1.5V(6dB)
HEADPHONE OUTPUT
0.6V/8 OHMS(-2.0dB)
200mV
(-9.5dB)
TAPE REC 1,2
150mV(-14dB)
FREQUENCY 1KHz

Fig. 20 Level Diagram PS-200M

2. MODEL PS-120M and PS-200M

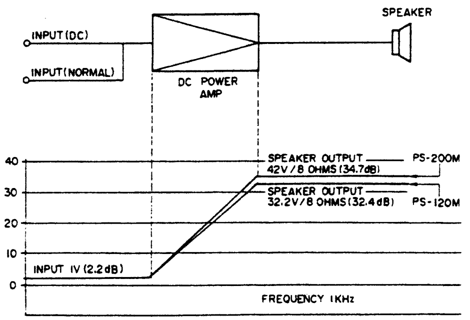

INPUT (DC)
INPUT (NORMAL)
DC POWER AMP
SPEAKER
40
30
20
10
0
LEVEL IN dB
INPUT 1V (2.2dB)
SPEAKER OUTPUT
42V/8 OHMS (34.7dB)
PS-200M
SPEAKER OUTPUT
32.2V/8 OHMS (32.4dB)
PS-120M
FREQUENCY 1KHz

Fig. 21 Level Diagram PS-120M and PS-200M

VII. AMPLIFIER ADJUSTMENT

1. MODEL PS-200C (Refer to Fig. 22)

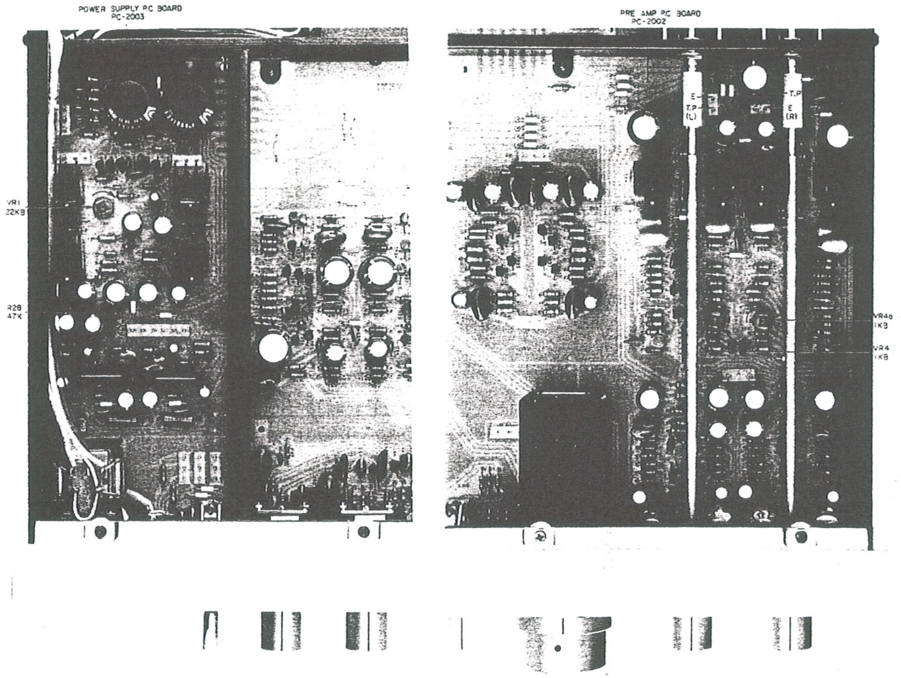

POWER SUPPLY P.C BOARD
PC-2003
PRE AMP P.C BOARD
PC-2002
VR1
22KB
R28
47K
E
T.P
(L)
T.P
E
(R)
VR4b
1KB
VR4
1KB

Fig. 22 Adjustment Point

Step	Adjustment Item	Measuring Instrument Connection	Adjustment Point	Result	Remarks
1	DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R28 ⊕ and Ground	VR1 22 kB (Power Supply P.C Board)	42.0 V	
2	L ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between T.P (L) and Ground	VR4 1 kB (Pre Amp P.C Board)	0 ± 0.5 V	OK if 0 ± 0.5 V at the beginning of adjustment
3	R ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between T.P (R) and Ground	VR4b 1 kB (Pre Amp P.C Board)	0 ± 0.5 V	

Chart-1

2. MODEL PS-120M (Refer to Figs. 23, 24)

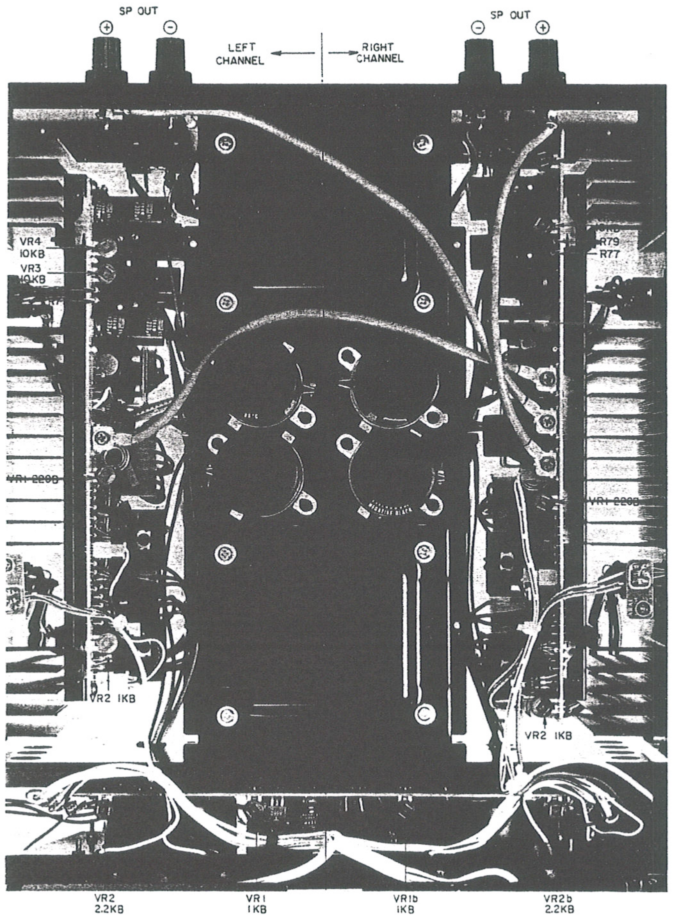

SP OUT
⊕
⊖
LEFT CHANNEL
RIGHT CHANNEL
SP OUT
⊖
⊕
VR4
10KB
VR3
10KB
R79
R77
VR1 220B
VR1 220B
VR2 1KB
VR2 1KB
VR2
2.2KB
VR1
1KB
VR1b
1KB
VR2b
2.2KB

Fig. 23 Adjustment Point

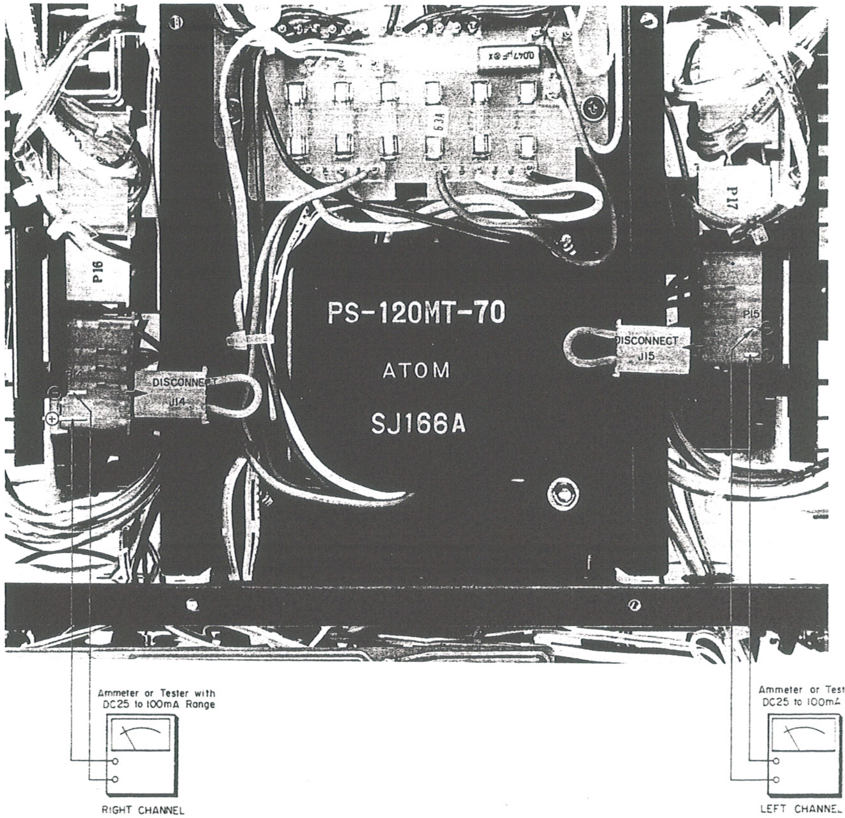

PS-120MT-70
ATOM
SJ166A
P16
P17
P15
DISCONNECT J14
DISCONNECT J15
Ammeter or Tester with DC25 to 100mA Range
Ammeter or Tester with DC25 to 100mA Range
RIGHT CHANNEL
LEFT CHANNEL

Fig. 24 Idling Current Adjustment

Step	Adjustment Item	Measuring Instrument Connection	Adjustment Point	Result	Remarks
1	L ch –DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R79 and Ground	VR4 10 kB (Main Amp P.C Board (L))	–62.0 V	Refer to NOTE 2.
2	L ch +DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R77 and Ground	VR3 10 kB (Main Amp P.C Board (L))	+62.0 V	Refer to NOTE 2.
3	L ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between L ch SP OUT ⊕ and ⊖	VR1 220 B (Main Amp P.C Board (L))	0 ± 0.5 V	OK if 0 ± 0.5 mV at the beginning of adjustment
4	L ch Idling Current Adjustment	DC Ammeter or Tester between P15 ⊕ and ⊖	VR2 1 kB (Main Amp P.C Board (L))	20 mA	Refer to Fig. 7 and NOTE 3.
5	R ch –DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R79 and Ground	VR4 10 kB (Main Amp P.C Board (R))	–62.0 V	Refer to NOTE 2.
6	R ch +DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R77 and Ground	VR3 10 kB (Main Amp P.C Board (R))	+62.0 V	Refer to NOTE 2.
7	R ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R ch SP OUT ⊕ and ⊖	VR1 220 B (Main Amp P.C Board (R))	0 ± 0.5 mV	OK if 0 ± 0.5 mV at the beginning of adjustment
8	R ch Idling Current Adjustment	DC Ammeter or Tester between P14 ⊕ and ⊖	VR2 1 kB (Main Amp P.C Board (R))	20 mA	Refer to Fig. 7 and NOTE 3.
9	L ch Meter Sensitivity Adjustment	AC Voltmeter between L ch SP OUT ⊕ and ⊖	VR1 1 kB (Meter P.C Board)	Meter indicates 120 W	Input 1 kHz sine wave & adjust the input level until the AC Voltmeter reads 31.0 V. Refer to NOTE 4.
10	L ch LED Sensitivity Adjustment	AC Voltmeter between L ch SP OUT ⊕ and ⊖	VR2 2.2 kB (Meter P.C Board)	Input 1 kHz sine wave, control the output level with the input level, and adjust VR2 so that 0 dB LED will go on at SP output of 31.0V (120W) and off at 28.3V (100W). Refer to NOTE 4.	
11	R ch Meter Sensitivity Adjustment	AC Voltmeter between R ch SP OUT ⊕ and ⊖	VR1b 1 kB (Meter P.C Board)	Meter indicates 120 W	Input 1 kHz sine wave & adjust the input level until the AC Voltmeter reads 31.0 V. Refer to NOTE 4.
12	R ch LED Sensitivity Adjustment	AC Voltmeter between R ch SP OUT ⊕ and ⊖	VR1b 2.2 kB (Meter P.C Board)	Input 1 kHz sine wave, control the output level with the input level, and adjust VR2 so that 0 dB LED will go on at SP output of 31.0V (120W) and off at 28.3V (100W). Refer to NOTE 4.	

NOTES:
1. Connect and disconnect a measuring equipment only after the power has turned off for several seconds.
2. When connecting the Voltmeter for Steps 1, 2, 5 and 6, do not shortcircuit positive and negative power sources.
3. When connecting the DC Ammeter for Steps 4 and 8, do not touch the angle fixing the P.C Board.
4. Do adjustments in steps 9 to 12 with the input in only one channel.

3. MODEL PS-200M (Refer to Figs. 23, 24)

Step	Adjustment Item	Measuring Instrument Connection	Adjustment Point	Result	Remarks
1	L ch −DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R79 and Ground	VR4 10 kB (Main Amp P.C Board (L))	−73.0 V	Refer to NOTE 2.
2	L ch +DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R77 and Ground	VR3 10 kB (Main Amp P.C Board (L))	+73.0 V	Refer to NOTE 2.
3	L ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between L ch SP OUT ⊕ and ⊖	VR1 1 kB (Main Amp P.C Board (L))	0 ± 0.5 mV	OK if 0 ± 0.5 mV at the beginning of adjustment
4	L ch Idling Current Adjustment	DC Ammeter or Tester between P15 ⊕ and ⊖	VR2 1 kB (Main Amp P.C Board (R))	20 mA	Refer to Fig. 7 and NOTE 3.
5	R ch −DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R79 and Ground	VR4 10 kB (Main Amp P.C Board (R))	−73.0 V	Refer to NOTE 2.
6	R ch +DC Power Supply Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R77 and Ground	VR3 10 kB (Main Amp P.C Board (R))	+73.0 V	Refer to NOTE 2.
7	R ch Center Off-set Voltage Adjustment	DC Voltmeter or Digital Voltmeter between R ch SP OUT ⊕ and ⊖	VR1 220 B (Main Amp P.C Board (R))	0 ± 0.5 mV	OK if 0 ± 0.5 mV at the beginning of adjustment
8	R ch Idling Current Adjustment	DC Ammeter or Tester between P14 ⊕ and ⊖	VR2 1 kB (Main Amp P.C Board (R))	20 mV	Refer to Fig. 7 and NOTE 3.
9	L ch Meter Sensitivity Adjustment	AC Voltmeter between L ch SP OUT ⊕ and ⊖	VR1 1 kB (Meter P.C Board)	Meter indicates 200 W	Input 1 kHz sine wave & adjust the input level until the AC Voltmeter reads 40.0V. Refer to NOTE 4.
10	L ch LED Sensitivity Adjustment	AC Voltmeter between L ch SP OUT ⊕ and ⊖	VR2 2.2 kB (Meter P.C Board)	Input 1 kHz sine wave, control the output level with the input level, and adjust VR2 so that 0 dB LED will go on at SP output of 40.0 V (200W) and off at 35.8V (160W). Refer to NOTE 4.	
11	R ch Meter Sensitivity Adjustment	AC Voltmeter between R ch SP OUT ⊕ and ⊖	VR1b 1 kB (Meter P.C Board	Meter indicates 200 W	Input 1 kHz sine wave & adjust the input level until the AC Voltmeter reads 40.0 V. Refer to NOTE 4.

Step	Adjustment Item	Measuring Instrument Connection	Adjustment Point	Result	Remarks
12	R ch LED Sensitivity Adjustment	AC Voltmeter between R ch SP OUT ⊕ and ⊖	VR2b 2.2 kB (Meter P.C Board)	Input 1 kHz sine wave, control the output level with the input level, and adjust VR2 so that 0 dB LED will go on at SP output of 40.0 V (200 W) and off at 35.8V (160W). Refer to NOTE 4.	

Chart-3

NOTES:
1. Connect and disconnect a measuring equipment only after the power has turned off for several seconds.
2. When connecting the Voltmeter for Steps 1, 2, 5 and 6, do not shortcircuit positive and negative power sources.
3. When connecting the DC Ammeter for Steps 4 and 8, do not touch the angle fixing the P.C Board.
4. Do adjustments in steps 9 to 12 with the input in only one channel.

VIII. CLASSIFICATION OF VARIOUS P.C BOARDS

1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

1) Model PS-200C

P.C Board Title	P.C Board Number
Selector P.C Board	PC-2001
Pre Amp P.C Board (Old Type)	PC-2002
Pre Amp P.C Board (B) (New Type)	PC-2056
Power Supply P.C Board	PC-2003
Impedance Selector P.C Board	PC-2033
LED P.C Board (B)	PM-1252
Fuse P.C Board (U) (U/T)	PC-2004
Fuse P.C Board (C) (CSA, AAL)	PC-2034
Fuse P.C Board (E) (CEE, UK)	PC-2035

Chart-4

2) Model PS-120M

P.C Board Title	P.C Board Number
Main Amp P.C Board (L)	PM-1201
Main Amp P.C Board (R)	PM-1202
Filter P.C Board	PM-1203
Meter P.C Board	PM-1204
Temp Compensation P.C Board	PM-1249
LED P.C Board (A)	PM-1250
LED P.C Board (B)	PM-1252
Fuse P.C Board (U) (U/T)	PM-1205
Fuse P.C Board (C) (CSA, AAL)	PM-1248
Fuse P.C Board (E) (CEE, UK)	PM-1251
Relay Terminal P.C Board	PM-1247

Chart-5

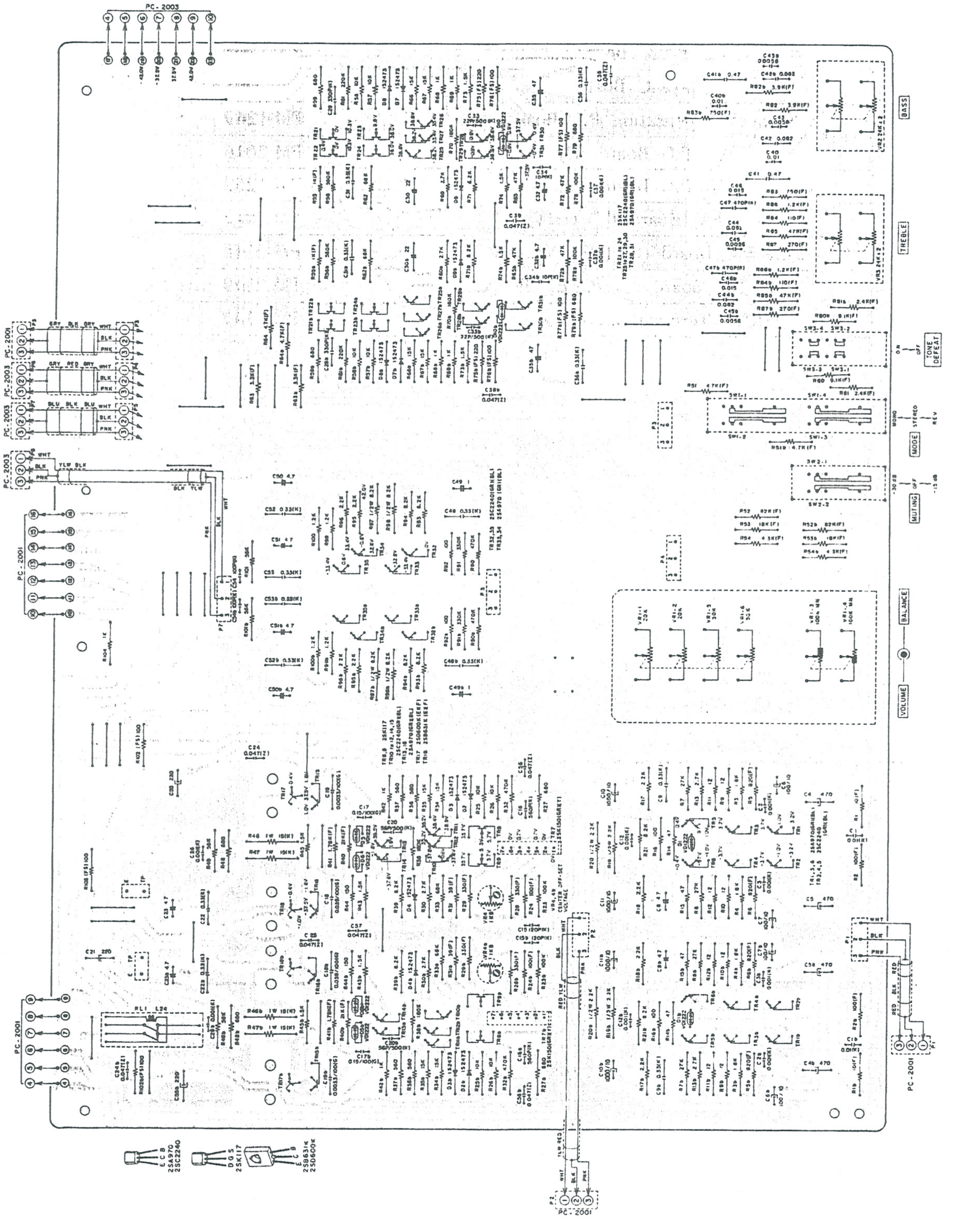
3) Model PS-200M

P.C Board Title	P.C Board Number
Main Amp P.C Board (L)	PM-1201
Main Amp P.C Board (R)	PM-1202
Filter P.C Board	PM-1203
Meter P.C Board	PM-2001
Temp Compensation P.C Board	PM-1249
LED P.C Board (C)	PM-2016
LED P.C Board (B)	PM-1252
Fuse P.C Board (U) (U/T)	PM-2017
Fuse P.C Board (C) (CSA, (AAL)	PM-2018
Fuse P.C Board (E) (CEE, UK)	PM-2019
Relay Terminal P.C Board	PM-1247

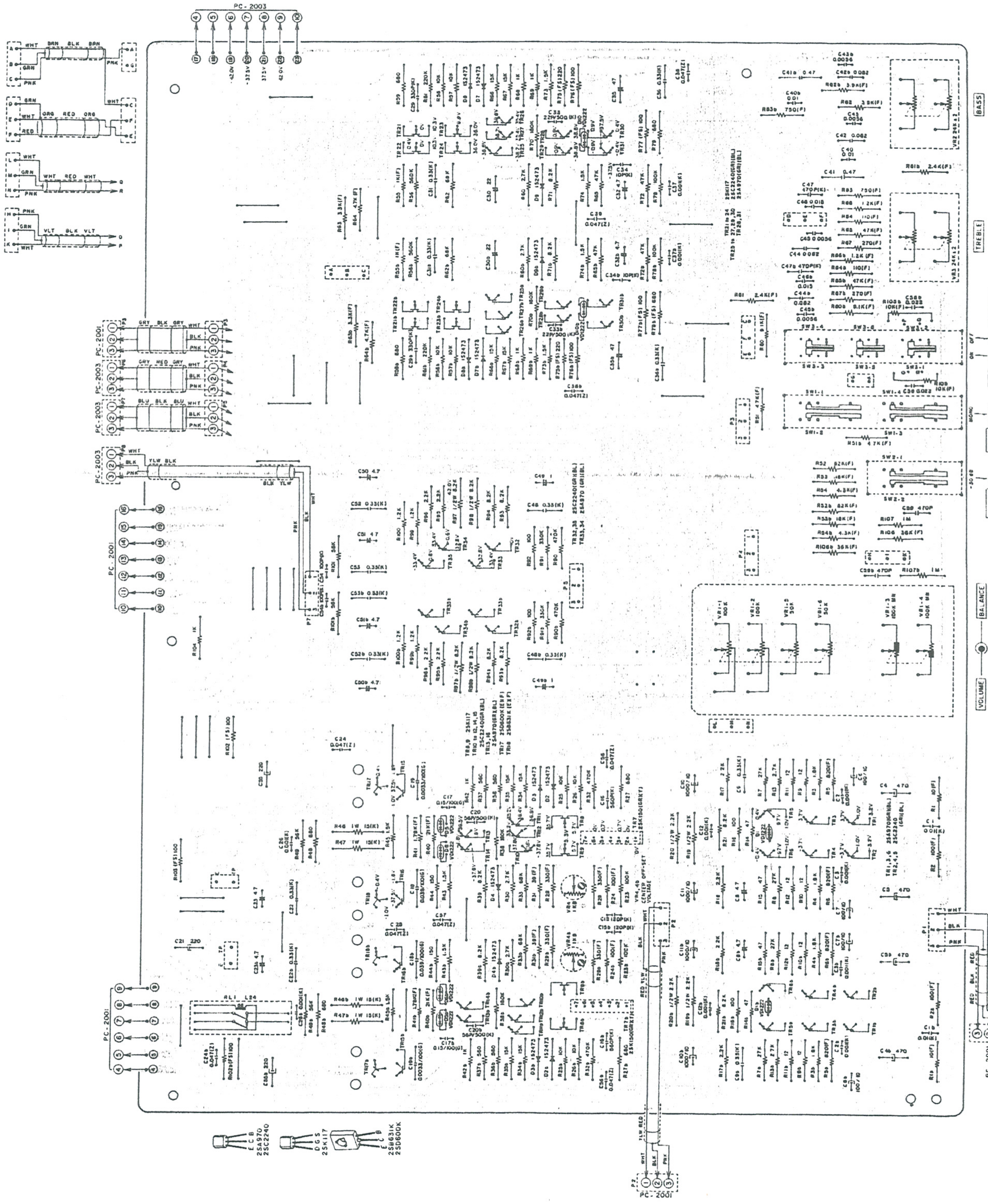
Chart-6

2. MODEL PS-200C COMPOSITION OF VARIOUS P.C BOARDS

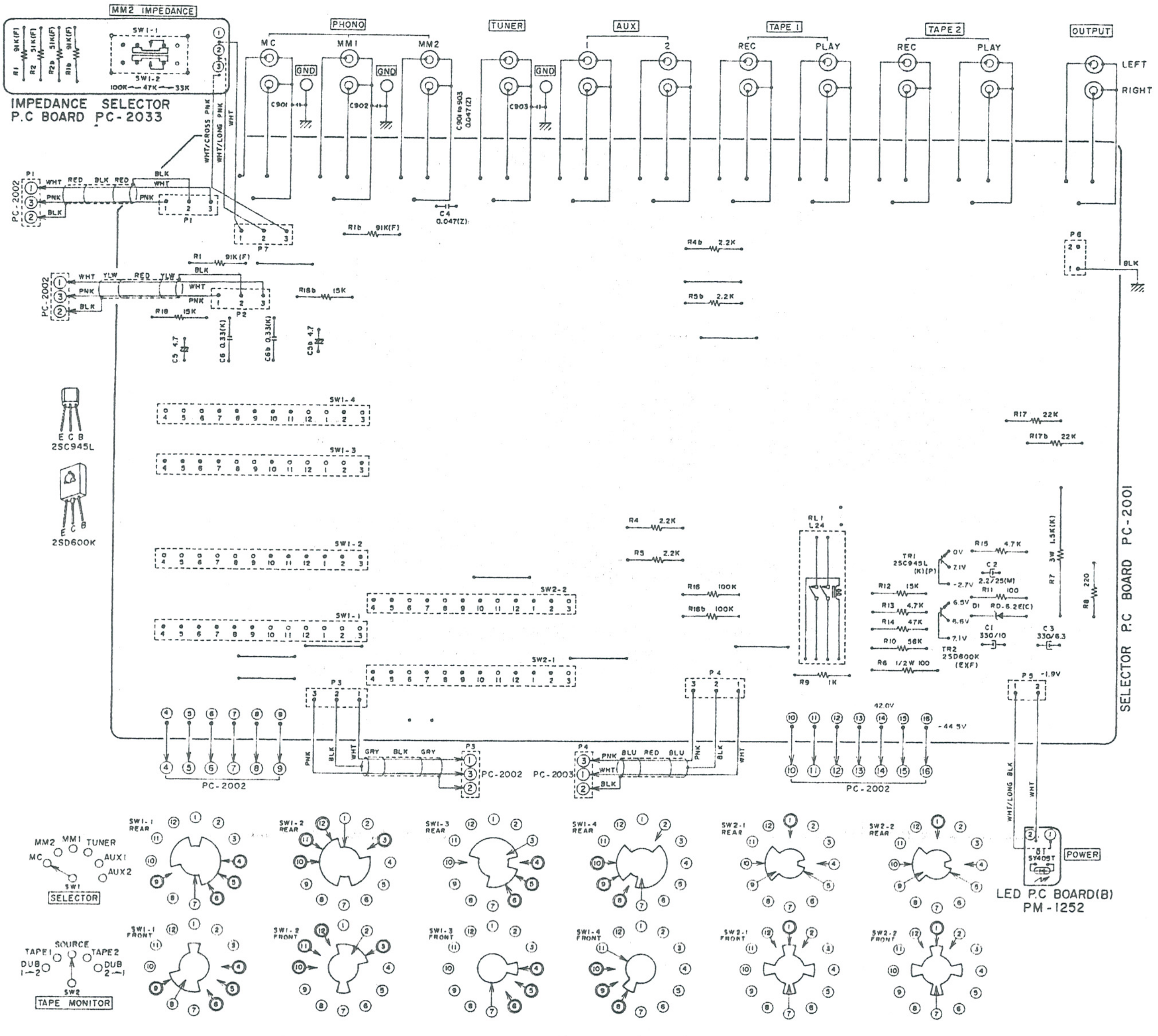
1) PRE AMP P.C BOARD PC-2002 (Old Type)


PC-2003
PC-2001
PC-2003
PC-2003
PC-2001
PC-2001
BASS
TREBLE
TONE DEFEAT
ON
OFF
MODE
MONO
STEREO
REV
MUTING
BALANCE
VOLUME
PC-2001
PC-2001
E C B
2SA970
2SC2240
D G S
2SK117
2SB631K
2SD600K

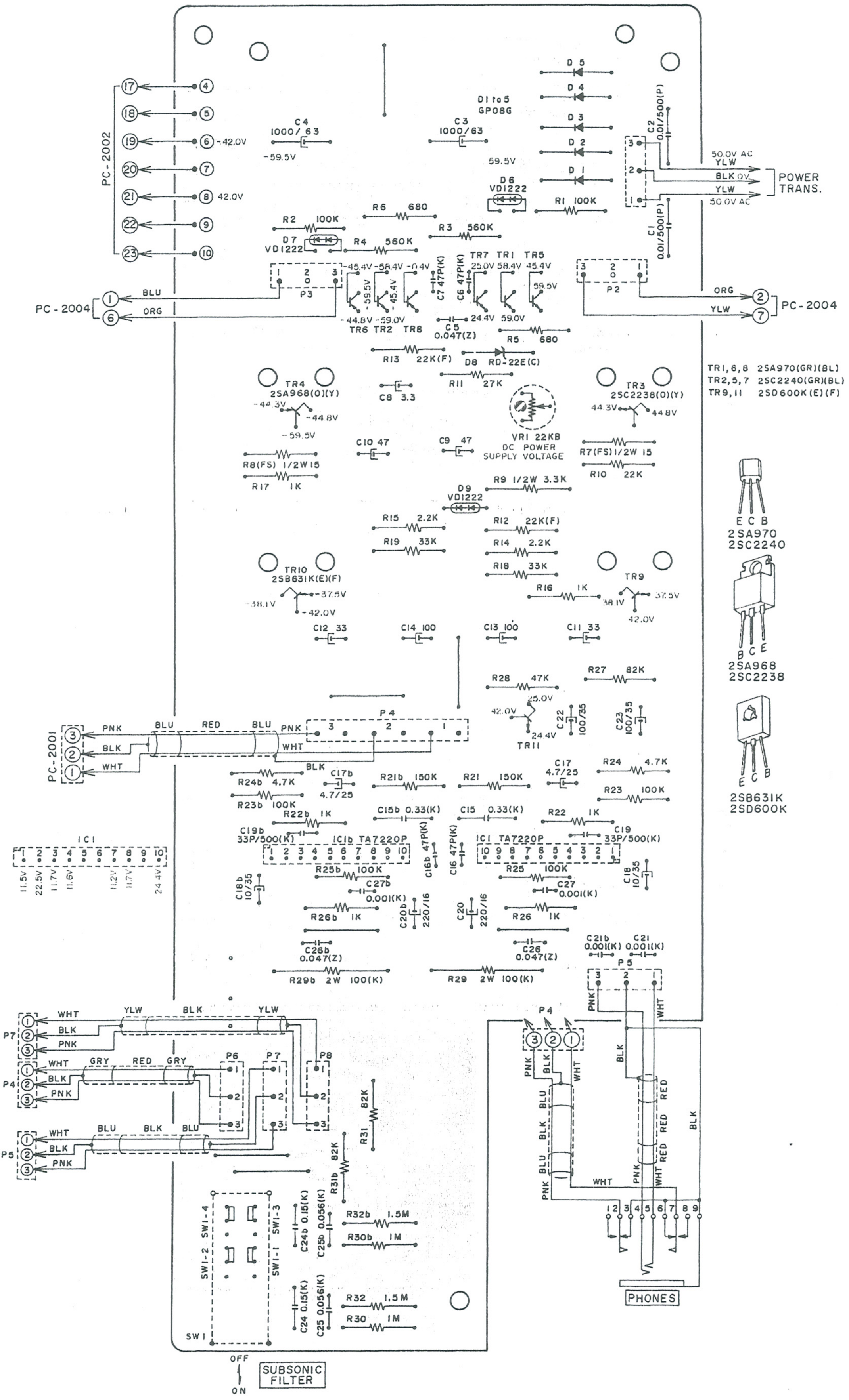
2) PRE AMP P.C BOARD (B) PC-2056 (New Type)


PC-2003
PC-2001
BASS
TREBLE
LOUDNESS
TONE
MODE
MUTING
BALANCE
VOLUME
2SA970
2SC2240
2SK117
2SB631K
2SD600K

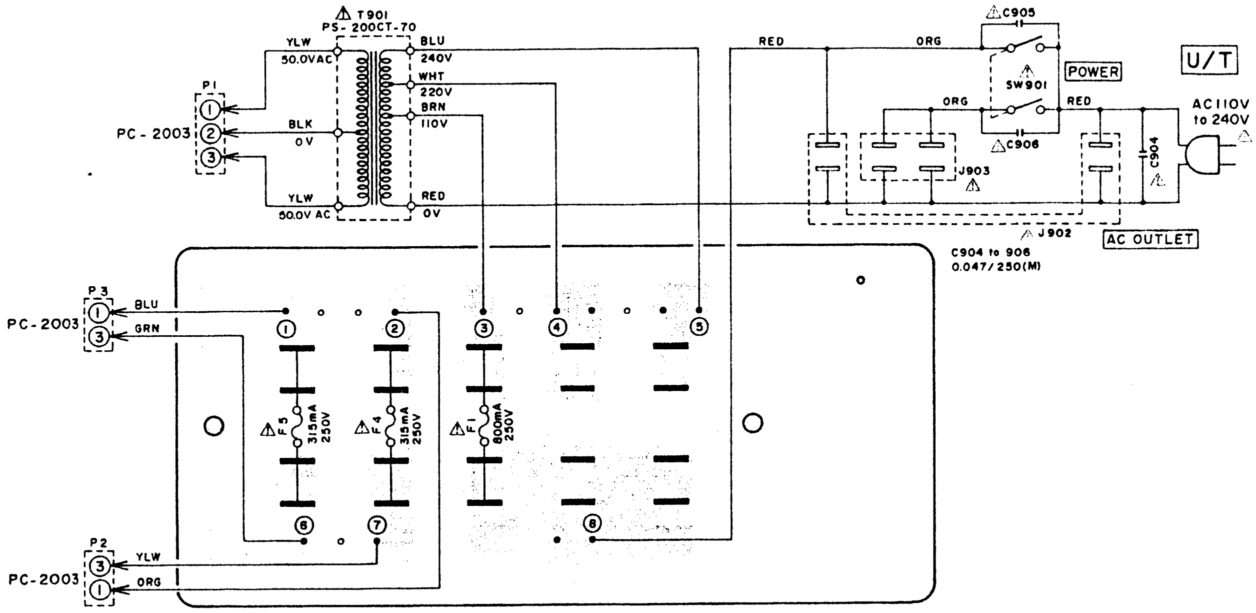
3) SELECTOR P.C BOARD PC-2001, IMPEDANCE SELECTOR P.C BOARD PC-2033 AND LED P.C BOARD (B) PM-1252


MM2 IMPEDANCE
IMPEDANCE SELECTOR P.C BOARD PC-2033
SW1-1
SW1-2
100K — 47K — 33K
PHONO
MC
MM1
MM2
GND
TUNER
AUX
TAPE 1
TAPE 2
REC
PLAY
OUTPUT
LEFT
RIGHT
C901
C902
C903
C901 to 903 0.047(Z)
C4 0.047(Z)
R1b 91K(F)
R1 91K(F)
R18b 15K
R18 15K
R4b 2.2K
R5b 2.2K
R4 2.2K
R5 2.2K
R16 100K
R16b 100K
R17 22K
R17b 22K
R7 3W 1.5K(K)
R8 220
RL1 L24
TR1 2SC945L (K)(P)
TR2 2SD600K (E)(F)
R15 4.7K
R12 15K
R13 4.7K
R14 47K
R10 56K
R6 1/2W 100
R9 1K
R11 100
C2 2.2/25(M)
C1 330/10
C3 330/6.3
D1 RD-6.2E(C)
C5 4.7
C6 0.33(K)
C6b 0.33(K)
C5b 4.7
2SC945L
2SD600K
E C B
SW1-4
SW1-3
SW1-2
SW1-1
SW2-2
SW2-1
P1
P2
P3
P4
P5
P6
P7
PC-2002
PC-2003
WHT
RED
BLK
PNK
YLW
BLU
GRY
WHT/CROSS PNK
WHT/LONG PNK
WHT/LONG BLK
42.0V
-44.5V
-1.9V
POWER
SY409T
LED P.C BOARD(B) PM-1252
SELECTOR P.C BOARD PC-2001
MM2
MM1
TUNER
MC
AUX1
AUX2
SW1
SELECTOR
TAPE1
SOURCE
TAPE2
DUB 1→2
DUB 2→1
SW2
TAPE MONITOR
SW1-1 REAR
SW1-2 REAR
SW1-3 REAR
SW1-4 REAR
SW2-1 REAR
SW2-2 REAR
SW1-1 FRONT
SW1-2 FRONT
SW1-3 FRONT
SW1-4 FRONT
SW2-1 FRONT
SW2-2 FRONT

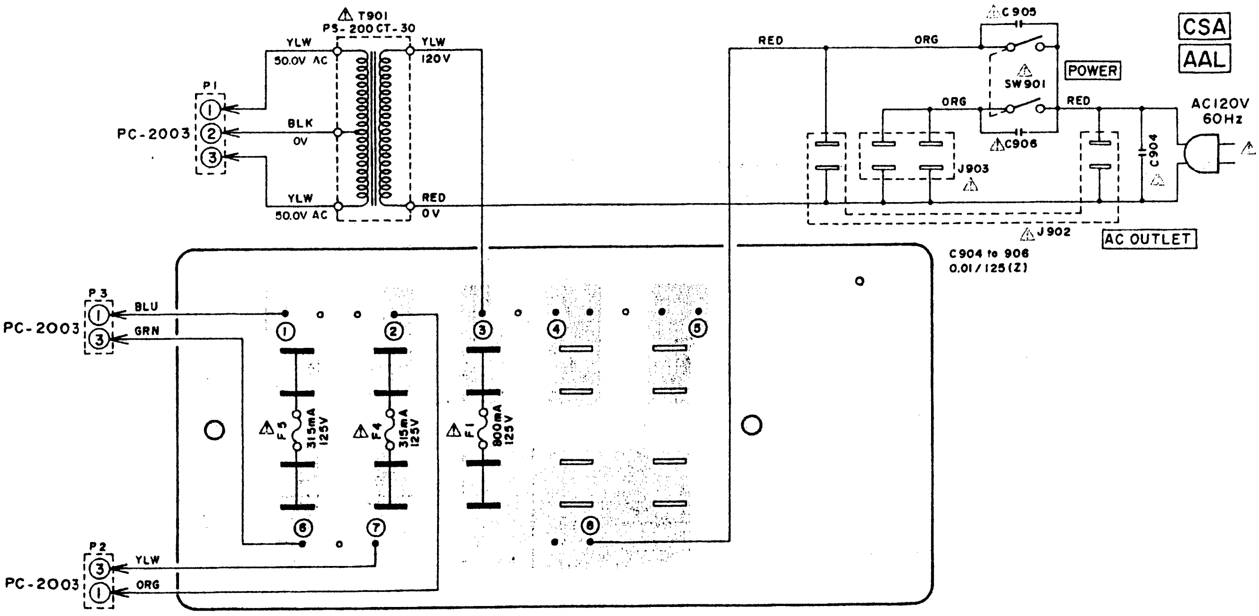
4) POWER SUPPLY P.C BOARD PC-2003


PC-2002
17 18 19 20 21 22 23
4 5 6 7 8 9 10
-42.0V
42.0V
C4 1000/63
-59.5V
C3 1000/63
59.5V
D1 to 5 GP08G
D5 D4 D3 D2 D1
D6 VD1222
R1 100K
C2 0.01/500(P)
C1 0.01/500(P)
50.0V AC
YLW
BLK 0V
YLW
50.0V AC
POWER TRANS.
R6 680
R2 100K
R3 560K
D7 VD1222
R4 560K
P3
-45.4V -58.4V -0.4V
C7 47P(K)
C6 47P(K)
TR7 TR1 TR5
25.0V 58.4V 45.4V
59.5V
-59.5V -45.4V
-44.8V -59.0V
TR6 TR2 TR8
C5 0.047(Z)
24.4V 59.0V
R5 680
P2
PC-2004
BLU
ORG
ORG
YLW
R13 22K(F)
D8 RD-22E(C)
R11 27K
TR4 2SA968(O)(Y)
-44.3V -44.8V
-59.5V
C8 3.3
TR3 2SC2238(O)(Y)
44.3V 44.8V
VR1 22KB DC POWER SUPPLY VOLTAGE
TR1,6,8 2SA970(GR)(BL)
TR2,5,7 2SC2240(GR)(BL)
TR9,11 2SD600K(E)(F)
C10 47
C9 47
R8(FS) 1/2W 15
R17 1K
R7(FS) 1/2W 15
R10 22K
R9 1/2W 3.3K
D9 VD1222
R15 2.2K
R12 22K(F)
R19 33K
R14 2.2K
R18 33K
E C B
2SA970
2SC2240
TR10 2SB631K(E)(F)
-38.1V -37.5V
-42.0V
R16 1K
TR9
38.1V 37.5V
42.0V
C12 33
C14 100
C13 100
C11 33
B C E
2SA968
2SC2238
R28 47K
R27 82K
P4
3 2 1
42.0V 25.0V
24.4V
TR11
C22 100/35
C23 100/35
PC-2001
PNK BLU RED BLU PNK
BLK
WHT
WHT
BLK
E C B
2SB631K
2SD600K
R24b 4.7K
C17b 4.7/25
R21b 150K
R21 150K
C17 4.7/25
R24 4.7K
R23b 100K
R23 100K
R22b 1K
C15b 0.33(K)
C15 0.33(K)
R22 1K
C19b 33P/500(K)
IC1b TA7220P
C16b 47P(K)
C16 47P(K)
IC1 TA7220P
C19 33P/500(K)
IC1
1 2 3 4 5 6 7 8 9 10
11.5V 22.5V 11.7V 11.6V 11.2V 11.7V 24.4V
C18b 10/35
R25b 100K
C27b 0.001(K)
R25 100K
C27 0.001(K)
C18 10/35
R26b 1K
C20b 220/16
C20 220/16
R26 1K
C26b 0.047(Z)
C26 0.047(Z)
C21b 0.001(K)
C21 0.001(K)
P5
R29b 2W 100(K)
R29 2W 100(K)
P7
P4
P5
WHT YLW BLK YLW
BLK
PNK
WHT GRY RED GRY
BLK
PNK
WHT BLU BLK BLU
BLK
PNK
P6 P7 P8
R31 82K
R31b 82K
SW1-4 SW1-3
SW1-2 SW1-1
C24b 0.15(K)
C25b 0.056(K)
R32b 1.5M
R30b 1M
C24 0.15(K)
C25 0.056(K)
R32 1.5M
R30 1M
SW1
OFF
ON
SUBSONIC FILTER
PNK BLK WHT
BLU BLK BLU
RED RED RED
BLK
WHT
1 2 3 4 5 6 7 8 9
PHONES

5) FUSE P.C BOARD (U) PC-2004 (U/T)


T901
PS-200CT-70
YLW
50.0VAC
BLU
240V
WHT
220V
BRN
110V
BLK
0V
YLW
50.0V AC
RED
0V
P1
PC-2003
RED
ORG
C905
SW901
POWER
ORG
RED
C906
J903
C904
J902
U/T
AC110V
to 240V
AC OUTLET
C904 to 906
0.047/250(M)
P3
BLU
GRN
PC-2003
P2
YLW
ORG
PC-2003
F5
315mA
250V
F4
315mA
250V
F1
800mA
250V

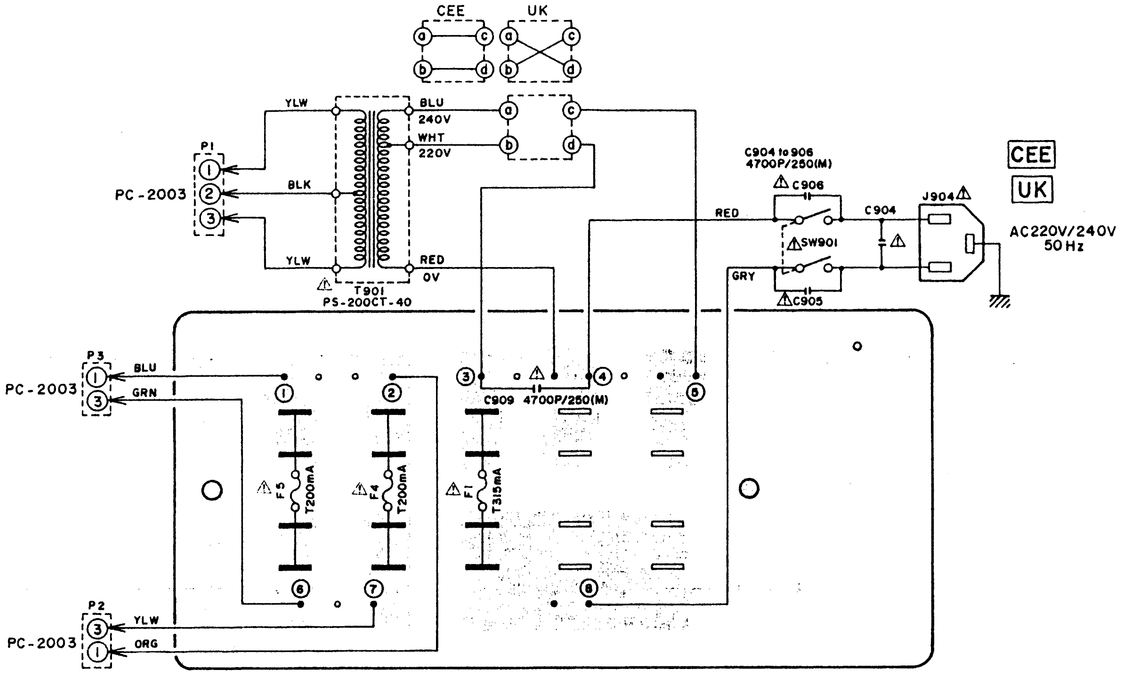
6) FUSE P.C BOARD (C) PC-2034 (CSA, AAL)


T901
PS-200CT-30
YLW
50.0V AC
YLW
120V
BLK
0V
YLW
50.0V AC
RED
0V
P1
PC-2003
RED
ORG
C905
SW901
POWER
ORG
RED
C906
J903
C904
J902
CSA
AAL
AC120V
60Hz
AC OUTLET
C904 to 906
0.01/125(Z)
P3
BLU
GRN
PC-2003
P2
YLW
ORG
PC-2003
F5
315mA
125V
F4
315mA
125V
F1
800mA
125V

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETE POUR MAINTENIR LE DEGRE DE SECURITE DE L APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

7) FUSE P.C BOARD (E) PC-2035 (CEE, UK)

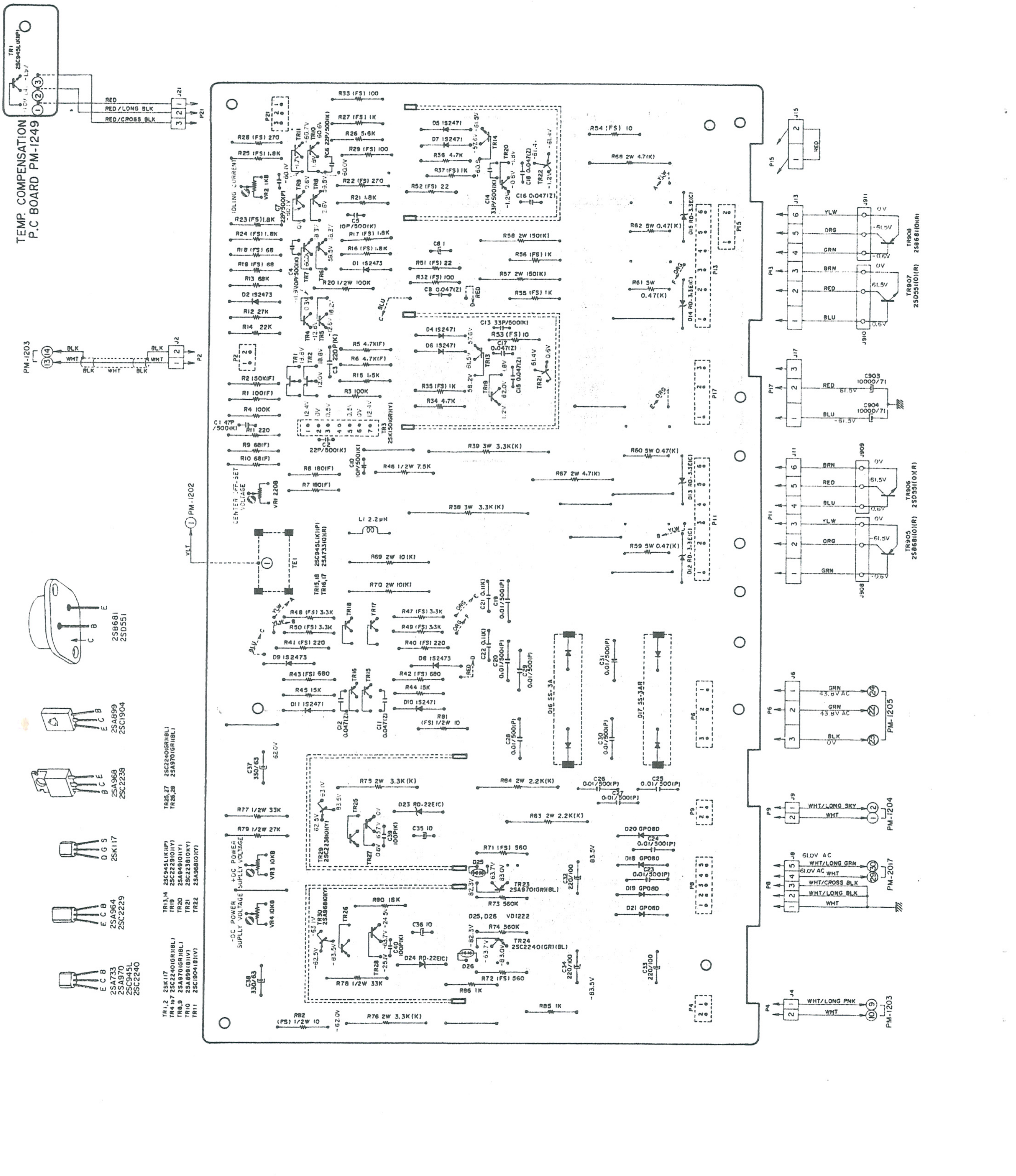

CEE
UK
a
b
c
d
YLW
BLU
240V
WHT
220V
P1
PC-2003
BLK
RED
0V
T901
PS-200CT-40
C904 to 906
4700P/250(M)
C906
SW901
C905
C904
J904
RED
GRY
CEE
UK
AC220V/240V
50 Hz
P3
PC-2003
BLU
GRN
C909 4700P/250(M)
F5
T200mA
F4
T200mA
F1
T315mA
P2
PC-2003
YLW
ORG

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

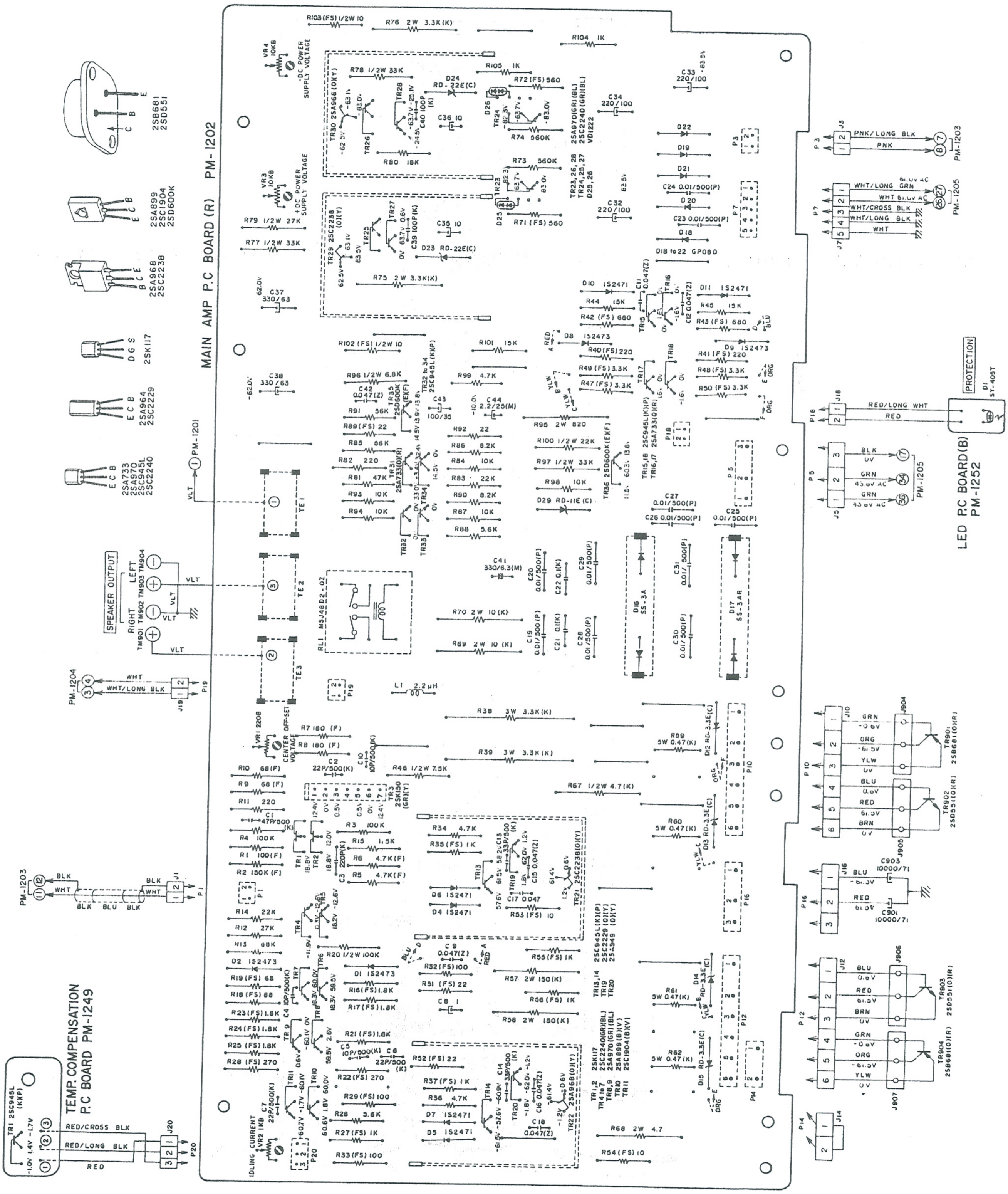
3. MODEL PS-120M COMPOSITION OF VARIOUS P.C BOARDS

1) MAIN AMP P.C BOARD (L) PM-1201 AND TEMP. COMPENSATION P.C BOARD PM-1249

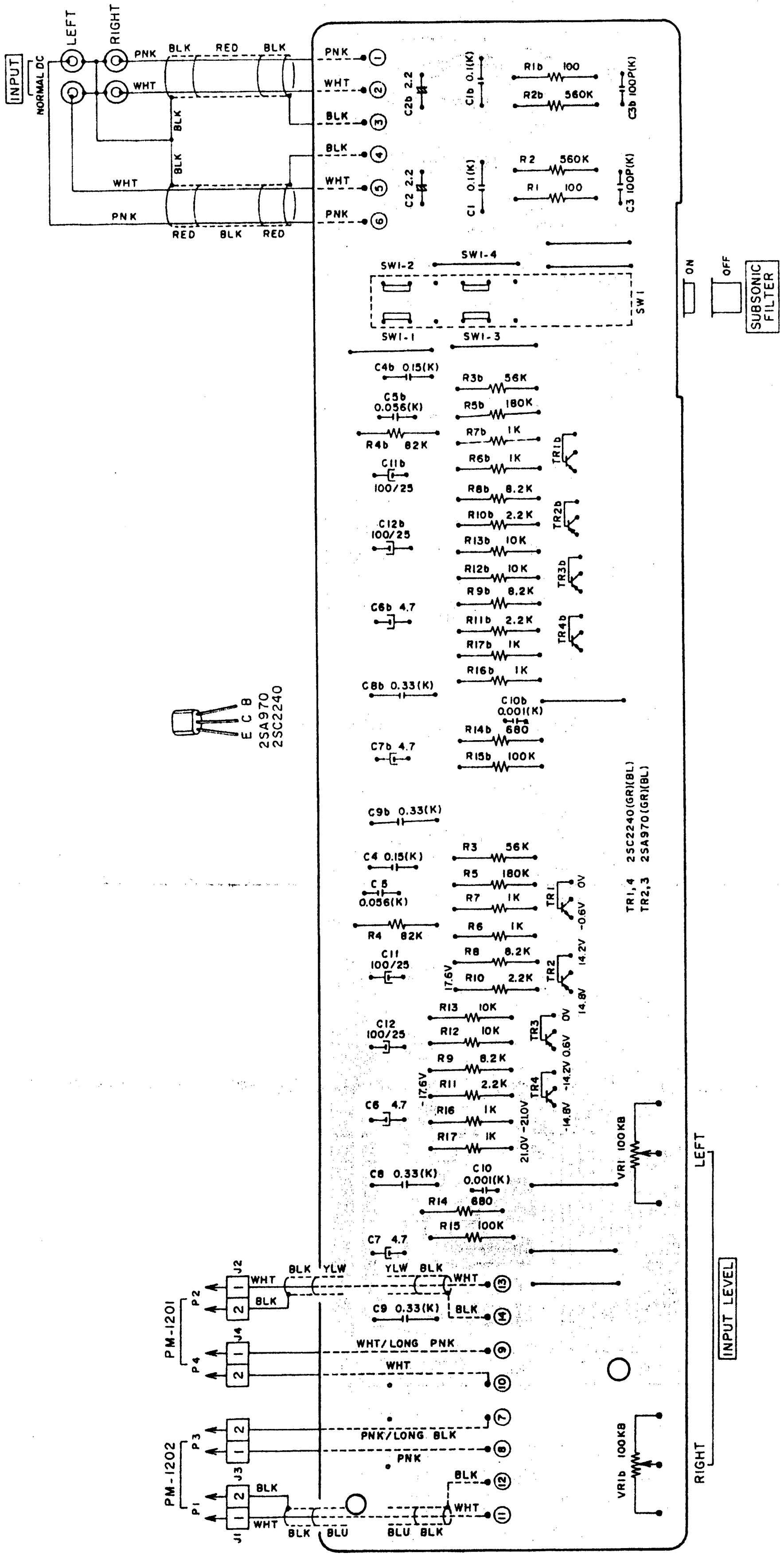


TEMP. COMPENSATION P.C BOARD PM-1249
TR1 2SC945L(K)(P)
RED
RED/LONG BLK
RED/CROSS BLK
P21
J21
PM-1203
BLK
WHT
P2
J2
PM-1202
VLT
TE1
R33 (FS) 100
R27 (FS) 1K
R28 (FS) 270
R26 5.6K
R25 (FS) 1.8K
R29 (FS) 100
IDLING CURRENT
VR2 1KB
R22 (FS) 270
R21 1.8K
R23 (FS) 1.8K
R24 (FS) 1.8K
C5 10P/500(K)
R17 (FS) 1.8K
R16 (FS) 1.8K
R18 (FS) 68
R19 (FS) 68
D1 1S2473
R13 68K
R20 1/2W 100K
D2 1S2473
R12 27K
R14 22K
R5 4.7K(F)
R6 4.7K(F)
R15 1.5K
R2 150K(F)
R1 100(F)
R3 100K
R4 100K
C1 47P/500(K)
R11 220
R9 68(F)
R10 68(F)
C2 22P/500(K)
R8 180(F)
R7 180(F)
CENTER OFF-SET VOLTAGE
VR1 220B
D5 1S2471
D7 1S2471
R36 4.7K
R37 (FS) 1K
R52 (FS) 22
C16 0.047(Z)
C14 33P/500(K)
C8 1
R51 (FS) 22
R32 (FS) 100
C9 0.047(Z)
D4 1S2471
D6 1S2471
C13 33P/500(K)
R53 (FS) 10
R35 (FS) 1K
R34 4.7K
R54 (FS) 10
R68 2W 4.7(K)
R58 2W 150(K)
R56 (FS) 1K
R57 2W 150(K)
R55 (FS) 1K
R62 5W 0.47(K)
R61 5W 0.47(K)
D15 RD-3.3E(C)
D14 RD-3.3E(C)
P13
P15
J15
P17
J17
R39 3W 3.3K(K)
R60 5W 0.47(K)
R67 2W 4.7(K)
R38 3W 3.3K(K)
R59 5W 0.47(K)
D13 RD-3.3E(C)
D12 RD-3.3E(C)
P11
J11
L1 2.2μH
R69 2W 10(K)
R70 2W 10(K)
R46 1/2W 7.5K
TR15,18 2SC945L(K)(P)
TR16,17 2SA733(K)(R)
R48 (FS) 3.3K
R50 (FS) 3.3K
R47 (FS) 3.3K
R49 (FS) 3.3K
R41 (FS) 220
R40 (FS) 220
D9 1S2473
D8 1S2473
R43 (FS) 680
R42 (FS) 680
R45 15K
R44 15K
D11 1S2471
D10 1S2471
R81 (FS) 1/2W 10
D16 SS-3A
D17 SS-3AR
P6
J6
C37 330/63
R75 2W 3.3K(K)
D23 RD-22E(C)
C35 10
C39 100P(K)
R84 2W 2.2K(K)
R83 2W 2.2K(K)
R77 1/2W 33K
R79 1/2W 27K
+DC POWER SUPPLY VOLTAGE
VR3 10KB
-DC POWER SUPPLY VOLTAGE
VR4 10KB
R71 (FS) 560
TR23 2SA970(GR)(BL)
R73 560K
D25, D26 VD1222
R80 18K
C36 10
R74 560K
TR24 2SC2240(GR)(BL)
D24 RD-22E(C)
R72 (FS) 560
R78 1/2W 33K
R86 1K
R85 1K
C38 330/63
R82 (FS) 1/2W 10
R76 2W 3.3K(K)
D20 GP08D
D18 GP08D
D19 GP08D
D21 GP08D
P9
J9
P8
J8
P4
J4
YLW
ORG
GRN
BRN
RED
BLU
0V
-61.5V
61.5V
-0.6V
0.6V
TR908 2SB681(O)(R)
TR907 2SD551(O)(R)
J910
J911
C903 10000/71
C904 10000/71
J909
TR906 2SD551(O)(R)
TR905 2SB681(O)(R)
J908
GRN 43.8V AC
BLK 0V
PM-1205
WHT/LONG SKY
WHT
PM-1204
61.0V AC
WHT/LONG GRN
WHT/CROSS BLK
WHT/LONG BLK
PM-2017
WHT/LONG PNK
PM-1203
2SB681
2SD551
E
C
B
2SA899
2SC1904
2SA968
2SC2238
TR25,27 2SC2240(GR)(BL)
TR26,28 2SA970(GR)(BL)
D G S
2SK117
TR13,14 2SC945L(K)(P)
TR19 2SC2229(O)(Y)
TR20 2SA949(O)(Y)
TR21 2SC2238(O)(Y)
TR22 2SA968(O)(Y)
2SA964
2SC2229
2SA733
2SA970
2SC945L
2SC2240
TR1,2 2SK117
TR4 to 7 2SC2240(GR)(BL)
TR8,9 2SA970(GR)(BL)
TR10 2SA949(O)(Y)
TR11 2SC1904(B)(Y)
TR3 2SK150(GR)(Y)

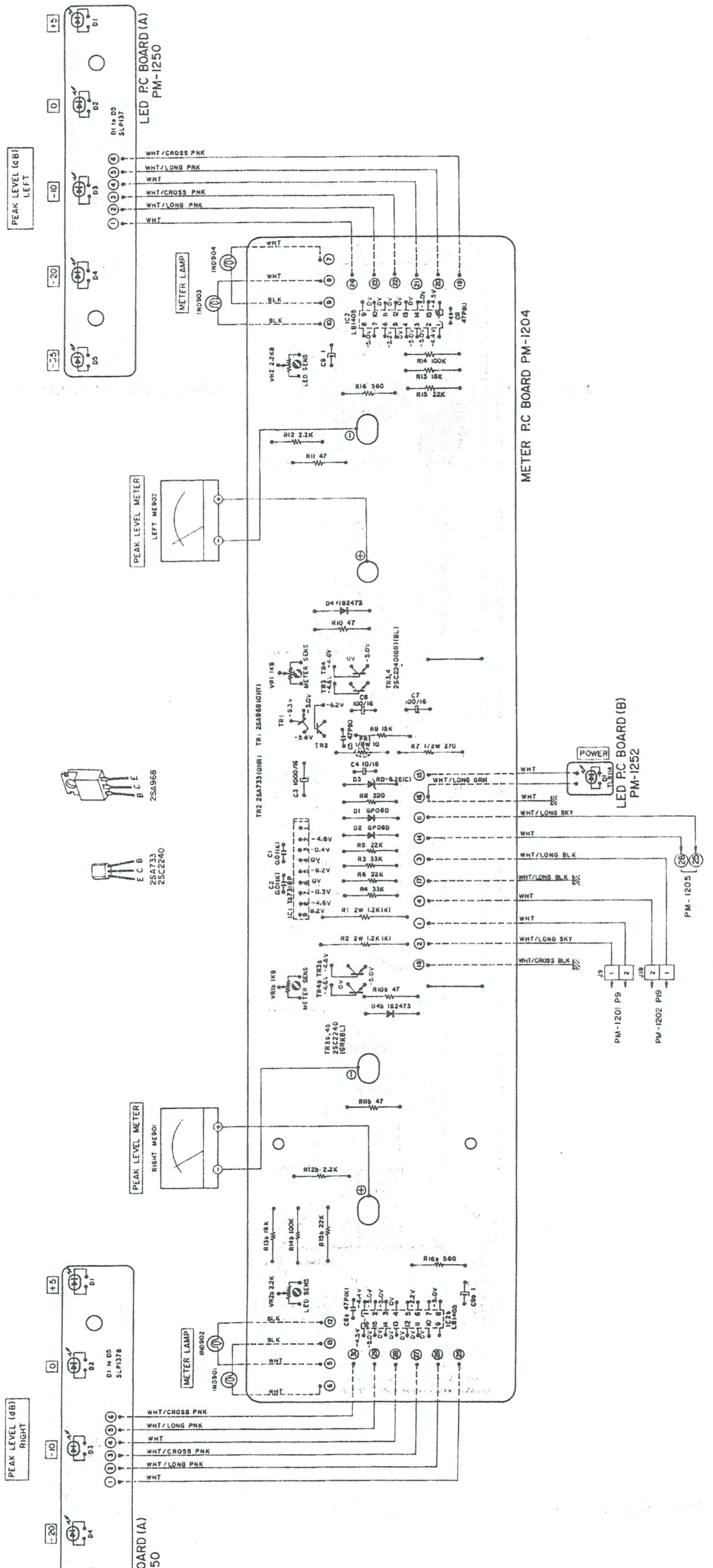
2) MAIN AMP P.C BOARD (R) PM-1202 AND TEMP. COMPENSATION P.C BOARD PM-1249


MAIN AMP P.C BOARD (R) PM-1202
TEMP. COMPENSATION P.C BOARD PM-1249
LED P.C BOARD(B) PM-1252
PROTECTION
SPEAKER OUTPUT
RIGHT TM901 TM902
LEFT TM903 TM904
VLT
PM-1201
PM-1203
PM-1204
PM-1205
2SB681 2SD551
2SA899 2SC1904 2SD600K
2SA968 2SC2238
2SK117
2SA964 2SC2229
2SA733 2SA970 2SC945L 2SC2240
TR1 2SC945L (KXP)
VR1 220B CENTER OFF-SET VOLTAGE
VR2 1KB IDLING CURRENT
VR3 10KB +DC POWER SUPPLY VOLTAGE
VR4 10KB -DC POWER SUPPLY VOLTAGE
RL1 MSJ48D2-0Z
L1 2.2μH
D16 SS-3A
D17 SS-3AR
D18 to 22 GP08D
TR901 2SB681(O)(R)
TR902 2SD551(O)(R)
TR903 2SD551(O)(R)
TR904 2SB681(O)(R)
C901 10000/71
C903 10000/71
R38 3W 3.3K(K)
R39 3W 3.3K(K)
R59 5W 0.47(K)
R60 5W 0.47(K)
R61 5W 0.47(K)
R62 5W 0.47(K)
R75 2W 3.3K(K)
R76 2W 3.3K(K)
R104 1K
R105 1K
R70 2W 10(K)
R69 2W 10(K)
R68 2W 4.7
TE1
TE2
TE3
RED/CROSS BLK
RED/LONG BLK
RED
PNK/LONG BLK
PNK
WHT/LONG GRN
WHT/CROSS BLK
WHT/LONG BLK
WHT
RED/LONG WHT
BLK
GRN
ORG
YLW
BLU
BRN
D1 ST-405T

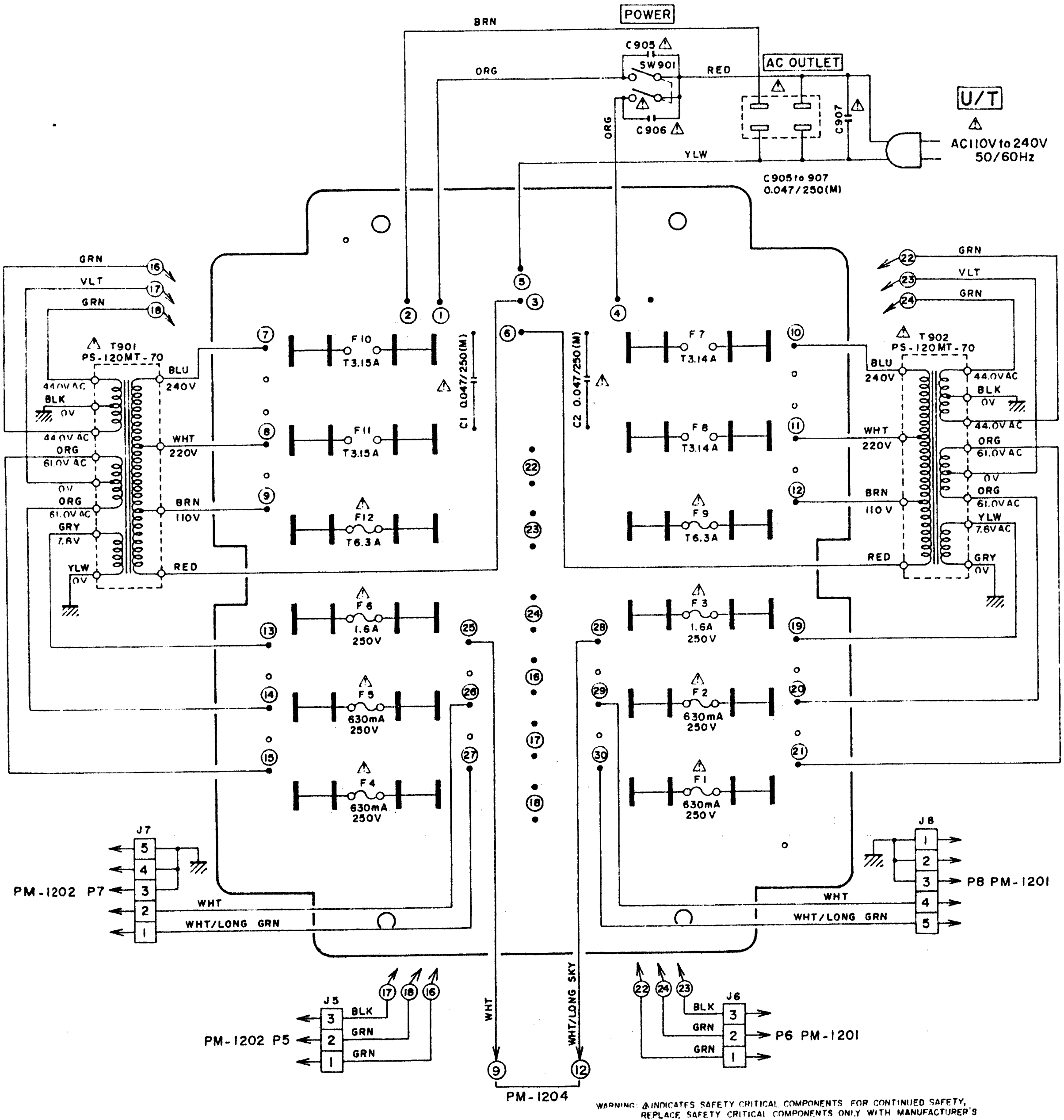
3) FILTER P.C BOARD PM-1203


INPUT
NORMAL DC
LEFT
RIGHT
PNK
WHT
BLK
RED
① ② ③ ④ ⑤ ⑥
C2b 2.2
C1b 0.1(K)
R1b 100
R2b 560K
C3b 100P(K)
C2 2.2
C1 0.1(K)
R2 560K
R1 100
C3 100P(K)
SW1-1
SW1-2
SW1-3
SW1-4
SW1
ON
OFF
SUBSONIC FILTER
C4b 0.15(K)
C5b 0.056(K)
R4b 82K
C11b 100/25
C12b 100/25
C6b 4.7
C8b 0.33(K)
C7b 4.7
C9b 0.33(K)
R3b 56K
R5b 180K
R7b 1K
R6b 1K
R8b 8.2K
R10b 2.2K
R13b 10K
R12b 10K
R9b 8.2K
R11b 2.2K
R17b 1K
R16b 1K
C10b 0.001(K)
R14b 680
R15b 100K
TR1b
TR2b
TR3b
TR4b
E C B
2SA970
2SC2240
TR1,4 2SC2240(GR)(BL)
TR2,3 2SA970(GR)(BL)
C4 0.15(K)
C5 0.056(K)
R4 82K
C11 100/25
C12 100/25
C6 4.7
C8 0.33(K)
C7 4.7
C9 0.33(K)
R3 56K
R5 180K
R7 1K
R6 1K
R8 8.2K
R10 2.2K
R13 10K
R12 10K
R9 8.2K
R11 2.2K
R16 1K
R17 1K
C10 0.001(K)
R14 680
R15 100K
TR1
TR2
TR3
TR4
0V
-0.6V
14.2V
14.8V
17.6V
0V
0.6V
-14.2V
-14.8V
-17.6V
21.0V
-21.0V
VR1 100KB
VR1b 100KB
LEFT
RIGHT
INPUT LEVEL
PM-1201
PM-1202
J1
J2
J3
J4
P1
P2
P3
P4
YLW
BLU
WHT/LONG PNK
PNK/LONG BLK
⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

4) METER P.C BOARD PM-1204, LED P.C BOARD (A) PM-1250 AND LED P.C BOARD (B) PM-1252


LED P.C BOARD (A) PM-1250
PEAK LEVEL (dB) LEFT
+5
0
-10
-20
-35
D1 to D5 SLP137
WHT/CROSS PNK
WHT/LONG PNK
WHT
METER LAMP
IND904
IND903
BLK
METER P.C BOARD PM-1204
IC2 LB1405
R14 100K
R13 18K
R15 22K
R16 560
VR2 2.2KB
LED SENS
R12 2.2K
R11 47
PEAK LEVEL METER
LEFT ME902
D4 1S2473
R10 47
VR1 1KB
METER SENS
TR3,4 2SC2240(GR)(BL)
C7 100/16
C6 100/16
TR1 2SA968(O)(Y)
TR2 2SA733(Q)(R)
R9 18K
R8 1/2W 10
R7 1/2W 270
C4 10/16
C3 1000/16
D3 RD-6.2E(C)
R8 220
D1 GP08D
D2 GP08D
R5 22K
R3 33K
R6 22K
R4 33K
R1 2W 1.2K(K)
R2 2W 1.2K(K)
IC1 TA7318P
WHT/LONG GRN
WHT/LONG SKY
WHT/LONG BLK
WHT/CROSS BLK
POWER
LED P.C BOARD (B) PM-1252
PM-1205
J9
J19
PM-1201 P9
PM-1202 P19
2SA968
B C E
2SA733 2SC2240
E C B
VR1b 1KB
R10b 47
D4b 1S2473
TR3b,4b 2SC2240 (GR)(BL)
R11b 47
PEAK LEVEL METER
RIGHT ME901
R12b 2.2K
R13b 18K
R14b 100K
R15b 22K
R16b 560
VR2b 2.2K
IC2b LB1405
IND902
IND901
PEAK LEVEL (dB) RIGHT
LED P.C BOARD (A) PM-1250

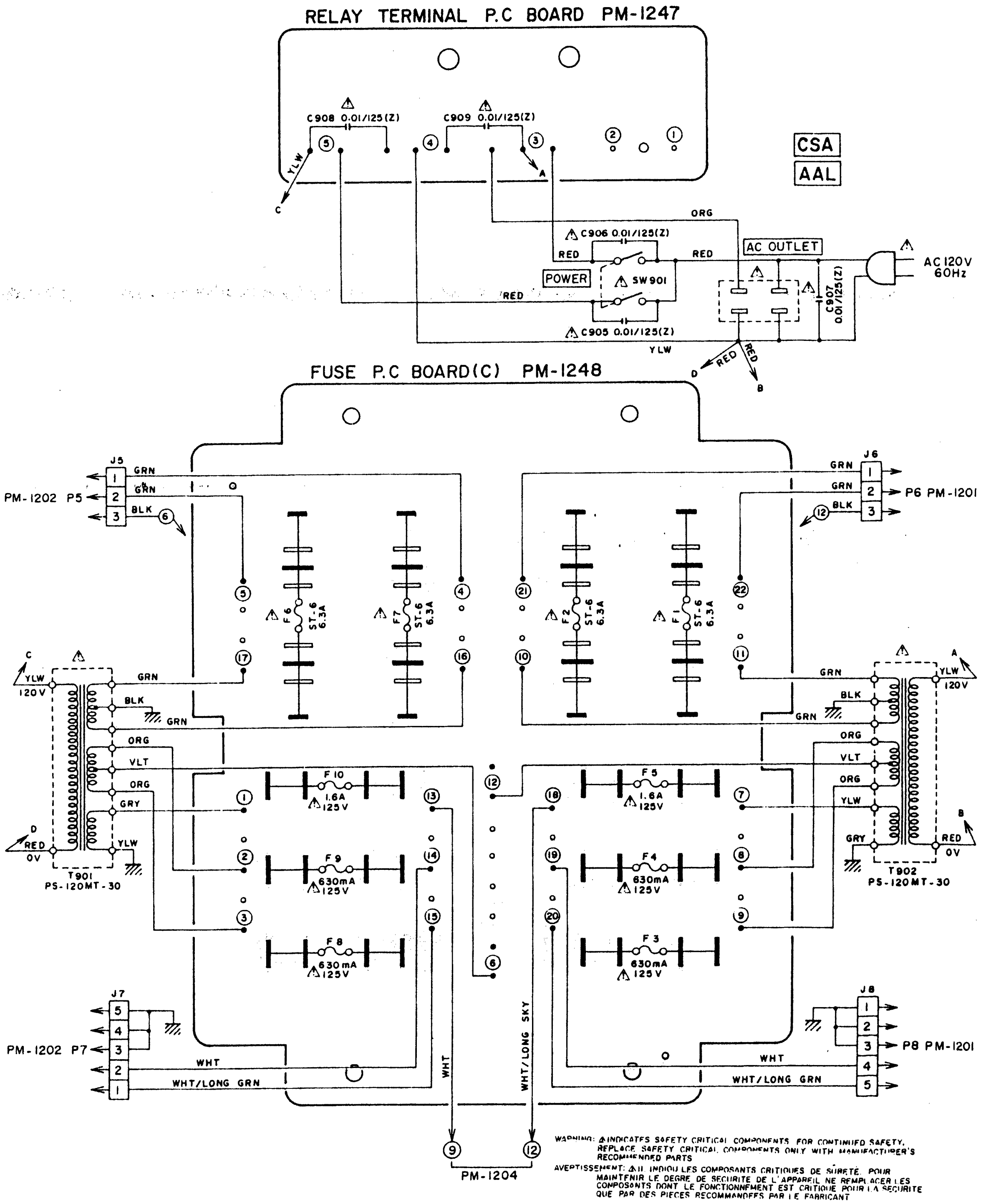
5) FUSE P.C BOARD (U) PM-1205 (U/T)


POWER
BRN
ORG
C905 ⚠
SW901
C906 ⚠
RED
AC OUTLET
⚠
C907 ⚠
YLW
U/T
⚠
AC110V to 240V
50/60Hz
C905 to 907
0.047/250(M)
GRN
VLT
GRN
⚠ T901
PS-120MT-70
44.0V AC
BLK
0V
44.0V AC
ORG
61.0V AC
0V
ORG
61.0V AC
GRY
7.6V
YLW
0V
BLU
240V
WHT
220V
BRN
110V
RED
F10
T3.15A
F11
T3.15A
F12
T6.3A
C1 0.047/250(M)
C2 0.047/250(M)
F7
T3.14A
F8
T3.14A
F9
T6.3A
F6
1.6A
250V
F5
630mA
250V
F4
630mA
250V
F3
1.6A
250V
F2
630mA
250V
F1
630mA
250V
⚠ T902
PS-120MT-70
BLU
240V
WHT
220V
BRN
110V
RED
44.0V AC
BLK
0V
44.0V AC
ORG
61.0V AC
0V
ORG
61.0V AC
YLW
7.6V AC
GRY
0V
J7
PM-1202 P7
WHT
WHT/LONG GRN
J8
P8 PM-1201
WHT
WHT/LONG GRN
J5
BLK
GRN
GRN
PM-1202 P5
WHT
WHT/LONG SKY
PM-1204
J6
BLK
GRN
GRN
P6 PM-1201

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

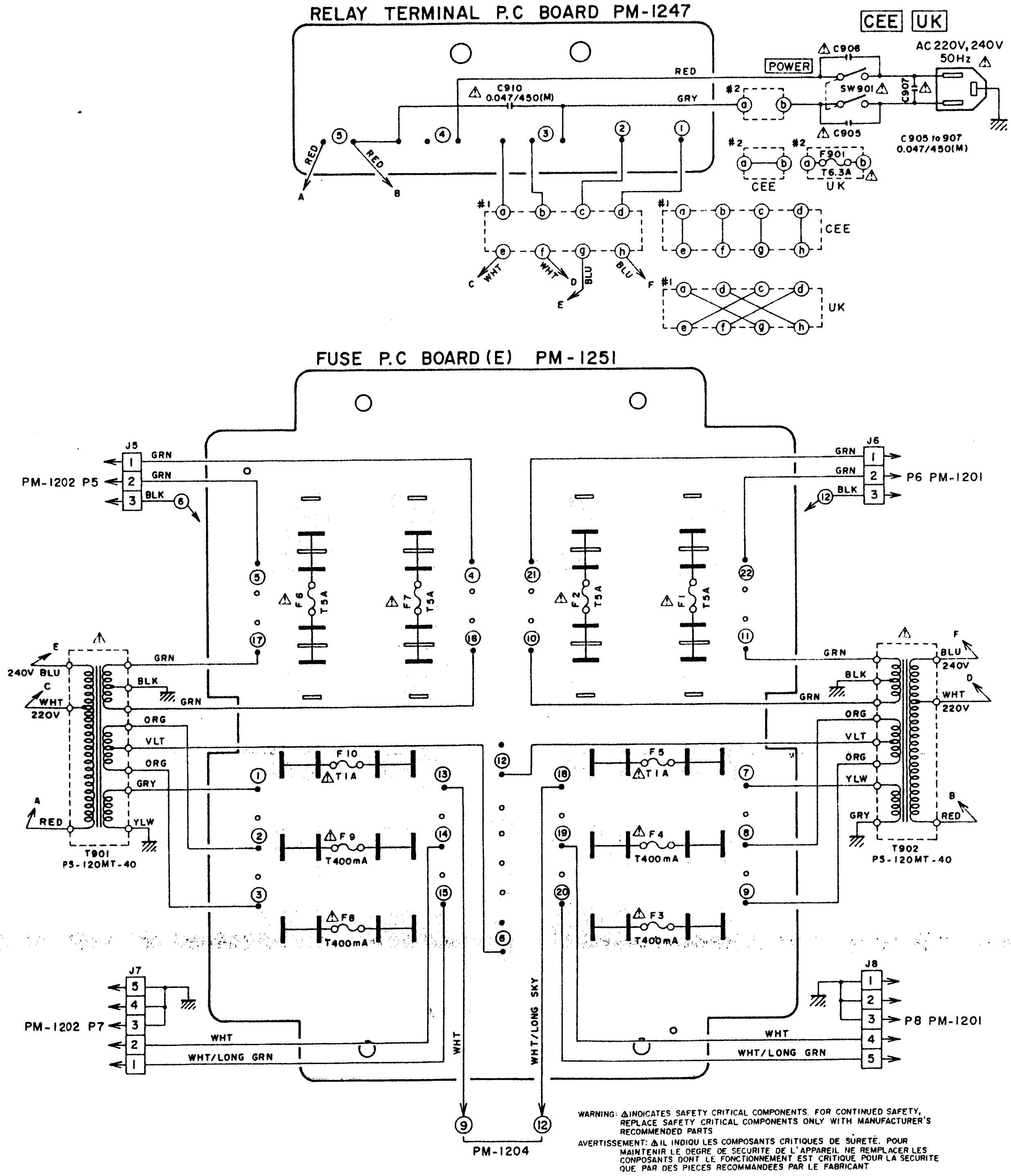
6) FUSE P.C BOARD (C) PM-1248 AND RELAY TERMINAL P.C BOARD PM-1247 (CSA, AAL)


RELAY TERMINAL P.C BOARD PM-1247
C908 0.01/125(Z)
C909 0.01/125(Z)
YLW
ORG
C906 0.01/125(Z)
RED
POWER
SW901
C905 0.01/125(Z)
AC OUTLET
C907 0.01/125(Z)
AC 120V 60Hz
CSA
AAL
FUSE P.C BOARD(C) PM-1248
J5
GRN
BLK
PM-1202 P5
J6
P6 PM-1201
F6 ST-6 6.3A
F7 ST-6 6.3A
F2 ST-6 6.3A
F1 ST-6 6.3A
F10 1.6A 125V
F9 630mA 125V
F8 630mA 125V
F5 1.6A 125V
F4 630mA 125V
F3 630mA 125V
120V
0V
VLT
GRY
T901 PS-120MT-30
T902 PS-120MT-30
J7
PM-1202 P7
J8
P8 PM-1201
WHT
WHT/LONG GRN
WHT/LONG SKY
PM-1204

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

7) FUSE P.C BOARD (E) PM-1251 AND RELAY TERMINAL P.C BOARD PM-1247 (CEE, UK)

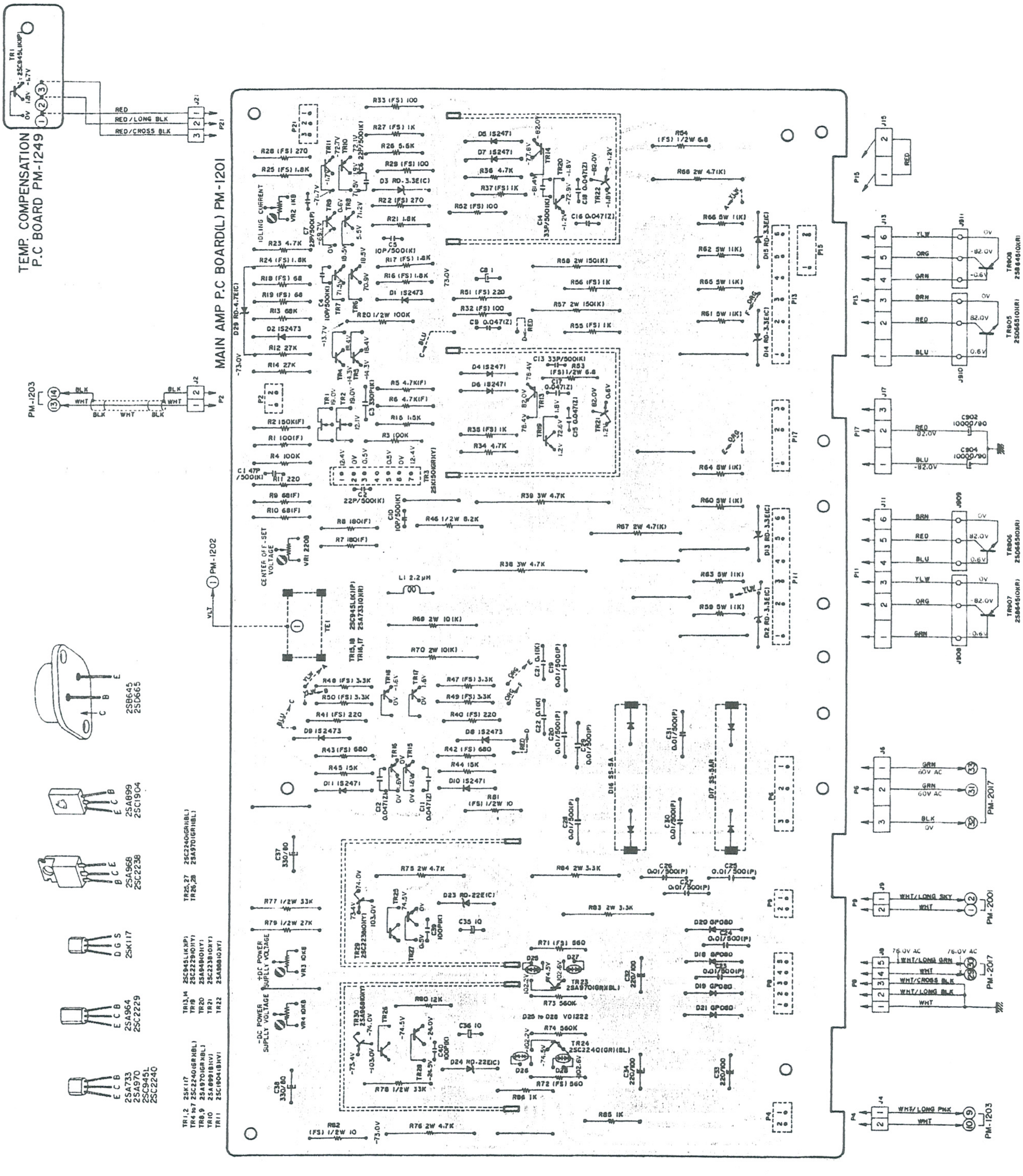

RELAY TERMINAL P.C BOARD PM-1247
CEE
UK
AC 220V, 240V 50Hz
POWER
C906
C907
C905
SW901
C905 to 907 0.047/450(M)
C910 0.047/450(M)
RED
GRY
F901 T6.3A
CEE
UK
FUSE P.C BOARD (E) PM-1251
J5
PM-1202 P5
J6
P6 PM-1201
F6 T5A
F7 T5A
F2 T5A
F1 T5A
F10 T1A
F5 T1A
F9 T400mA
F4 T400mA
F8 T400mA
F3 T400mA
240V BLU
WHT 220V
RED
T901 PS-120MT-40
T902 PS-120MT-40
GRN
BLK
ORG
VLT
GRY
YLW
J7
PM-1202 P7
J8
P8 PM-1201
WHT
WHT/LONG GRN
WHT/LONG SKY
PM-1204

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

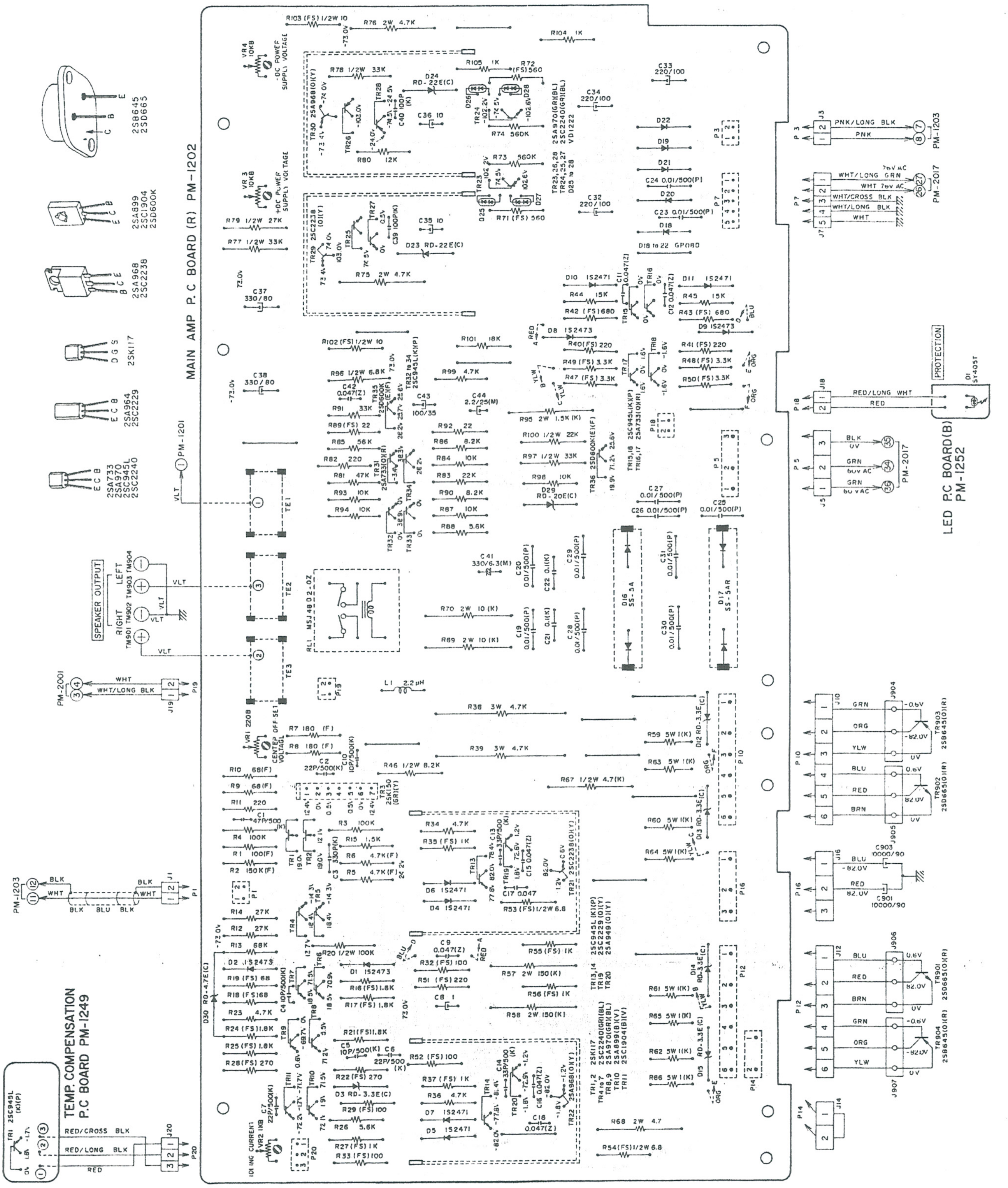
AVERTISSEMENT: ⚠IL INDIOU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

4. MODEL PS-200M COMPOSITION OF VARIOUS P.C BOARDS

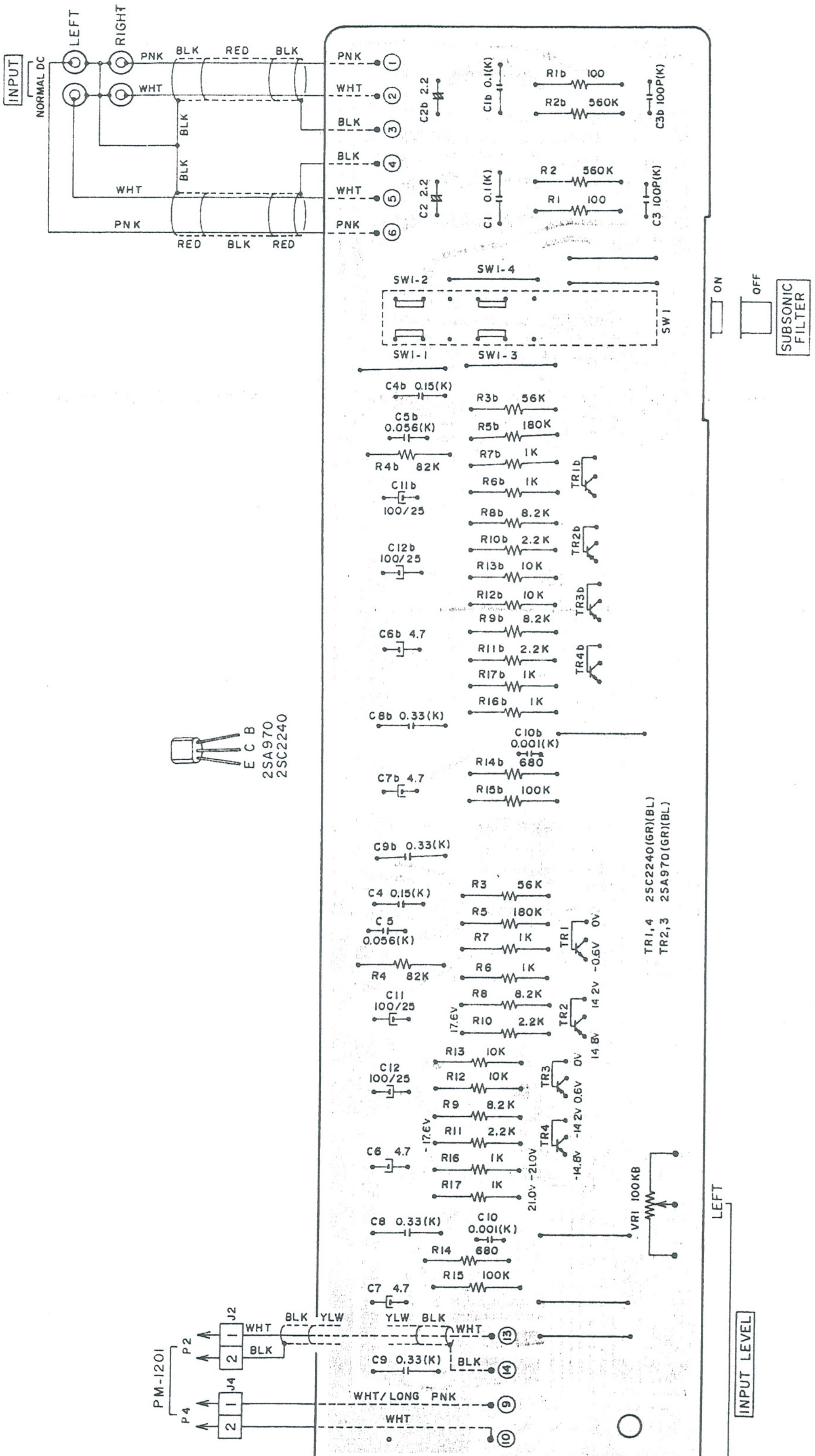
1) MAIN AMP P.C BOARD (L) PM-1201 AND TEMP. COMPENSATION P.C BOARD PM-1249


TEMP. COMPENSATION P.C BOARD PM-1249
MAIN AMP P.C BOARD(L) PM-1201
PM-1203
PM-1202
PM-2017
PM-2001
IDLING CURRENT
CENTER OFF-SET VOLTAGE
+DC POWER SUPPLY VOLTAGE
-DC POWER SUPPLY VOLTAGE
2SB645
2SD665
2SA899
2SC1904
2SA968
2SC2238
2SK117
2SA964
2SC2229
2SA733
2SA970
2SC945L
2SC2240
E
C
B
D
G
S

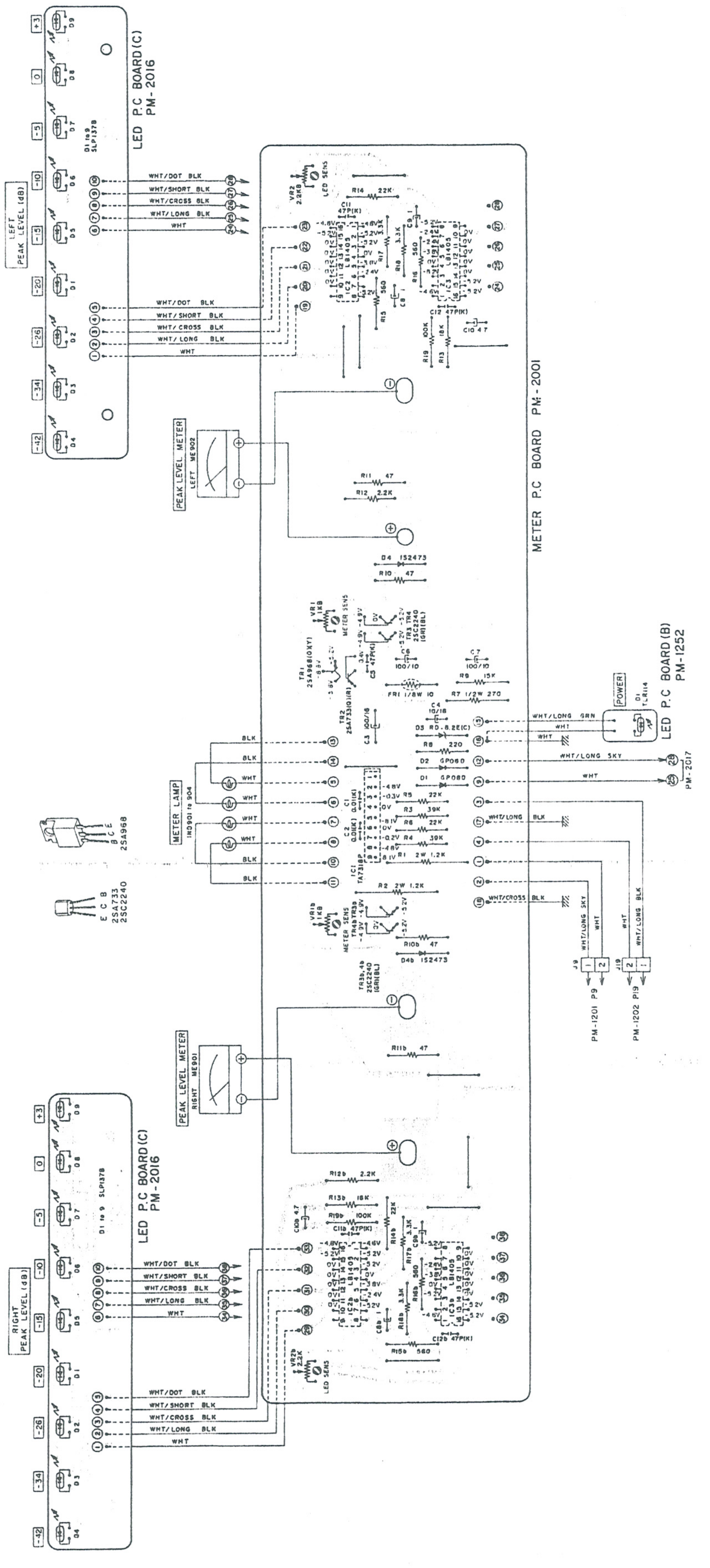
2) MAIN AMP P.C BOARD (R) PM-1202 AND TEMP. COMPENSATION P.C BOARD PM-1249


MAIN AMP P.C BOARD (R) PM-1202
TEMP. COMPENSATION P.C BOARD PM-1249
LED P.C BOARD(B) PM-1252
PROTECTION
D1 SY405T
SPEAKER OUTPUT
LEFT TM903 TM904
RIGHT TM901 TM902
VLT
2SB645 2SD665 C B E
2SA899 2SC1904 2SD600K E C B
2SA968 2SC2238 B C E
2SK117 D G S
2SA964 2SC2229 E C B
2SA733 2SA970 2SC945L 2SC2240 E C B
PM-1201
PM-1203
PM-2017
PM-2001
TR1 2SC945L (K)(P)
RED/CROSS BLK
RED/LONG BLK
RED
PNK/LONG BLK
PNK
WHT/LONG GRN
WHT 76V AC
WHT/CROSS BLK
WHT/LONG BLK
WHT
RED/LONG WHT
BLK 0V
GRN 60V AC
GRN 60V AC
WHT/LONG BLK
BLK
BLU
VR4 10KB -DC POWER SUPPLY VOLTAGE
VR3 10KB +DC POWER SUPPLY VOLTAGE
VR1 220B CENTER OFF SET VOLTAGE
VR2 1KB IDI ING CURRENT
RL1 MSJ4802-0Z
L1 2.2μH
D18 to 22 GP08D
D16 SS-5A
D17 SS-5AR
TE1
TE2
TE3
TR23,26,28 2SA970(GR)(BL)
TR24,25,27 2SC2240(GR)(BL)
D25 to 28 VD1222
TR32 to 34 2SC945L(K)(P)
TR15,18 2SC945L(K)(P)
TR16,17 2SA733(Q)(R)
TR36 2SD600K(E)(F)
TR13,14 2SC945L(K)(P)
TR19 2SC2229(O)(Y)
TR20 2SA949(O)(Y)
TR1,2 2SK117
TR4 to 7 2SC2240(GR)(BL)
TR8,9 2SA970(GR)(BL)
TR10 2SA899(B)(V)
TR11 2SC1904(B)(V)
TR21 2SC2238(O)(Y)
TR22 2SA968(O)(Y)
TR3 2SK150 (GR)(Y)
TR903 2SB645(O)(R)
TR902 2SD665(O)(R)
TR901 2SD665(O)(R)
TR904 2SB645(O)(R)
J904
J905
J906
J907
C903 10000/90
C901 10000/90
R103 (FS) 1/2W 10
R76 2W 4.7K
R104 1K
R78 1/2W 33K
R105 1K
R72 (FS) 560
R74 560K
R80 12K
R73 560K
R71 (FS) 560
R79 1/2W 27K
R77 1/2W 33K
R75 2W 4.7K
C33 220/100
C34 220/100
C32 220/100
C24 0.01/500(P)
C23 0.01/500(P)
C37 330/80
C38 330/80
R38 3W 4.7K
R39 3W 4.7K
R70 2W 10 (K)
R69 2W 10 (K)
R95 2W 1.5K (K)
R57 2W 150(K)
R58 2W 150(K)
R68 2W 4.7
R54 (FS) 1/2W 6.8
R53 (FS) 1/2W 6.8
R59 5W 1(K)
R63 5W 1(K)
R60 5W 1(K)
R64 5W 1(K)
R61 5W 1(K)
R65 5W 1(K)
R62 5W 1(K)
R66 5W 1(K)
P1
P3
P5
P7
P10
P12
P14
P16
P18
P19
P20
J1
J3
J5
J7
J10
J12
J14
J16
J18
J19
J20
GRN
ORG
YLW
BLU
RED
BRN
-0.6V
-82.0V
0V
0.6V
82.0V
-73.0V
73.0V

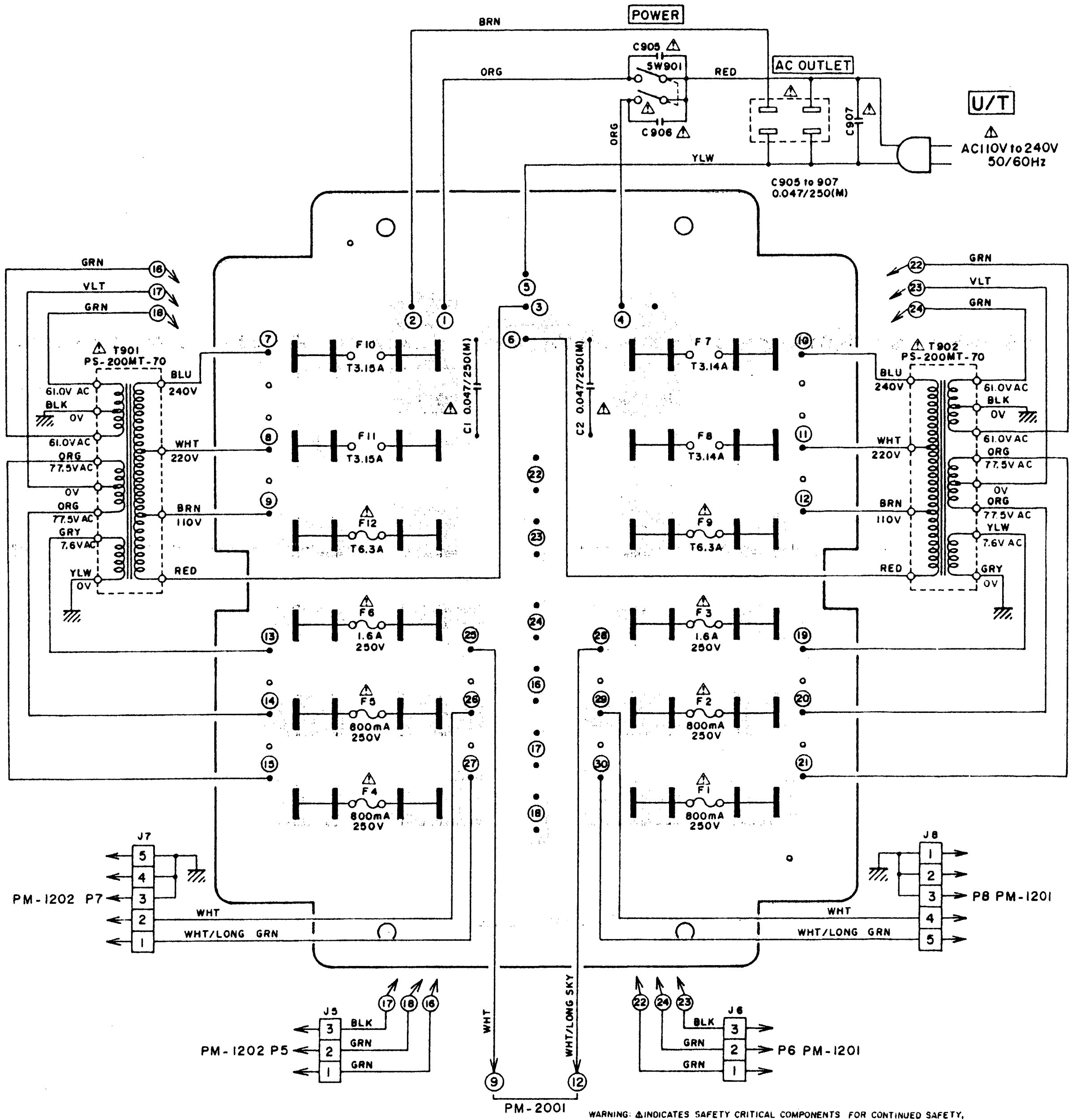
3) FILTER P.C BOARD PM-1203


INPUT
NORMAL DC
LEFT
RIGHT
PNK
WHT
BLK
RED
① ② ③ ④ ⑤ ⑥
C2b 2.2
C1b 0.1(K)
R1b 100
R2b 560K
C3b 100P(K)
C2 2.2
C1 0.1(K)
R2 560K
R1 100
C3 100P(K)
SW1-2
SW1-4
SW1-1
SW1-3
SW1
ON
OFF
SUBSONIC FILTER
C4b 0.15(K)
C5b 0.056(K)
R4b 82K
C11b 100/25
C12b 100/25
C6b 4.7
C8b 0.33(K)
C7b 4.7
C9b 0.33(K)
R3b 56K
R5b 180K
R7b 1K
R6b 1K
R8b 8.2K
R10b 2.2K
R13b 10K
R12b 10K
R9b 8.2K
R11b 2.2K
R17b 1K
R16b 1K
C10b 0.001(K)
R14b 680
R15b 100K
TR1b
TR2b
TR3b
TR4b
E C B
2SA970
2SC2240
TR1,4 2SC2240(GR)(BL)
TR2,3 2SA970(GR)(BL)
C4 0.15(K)
C5 0.056(K)
R4 82K
C11 100/25
C12 100/25
C6 4.7
C8 0.33(K)
C7 4.7
C9 0.33(K)
R3 56K
R5 180K
R7 1K
R6 1K
R8 8.2K
R10 2.2K
R13 10K
R12 10K
R9 8.2K
R11 2.2K
R16 1K
R17 1K
C10 0.001(K)
R14 680
R15 100K
TR1
TR2
TR3
TR4
0V
-0.6V
14.2V
14.8V
0V
0.6V
-14.2V
-14.8V
17.6V
-17.6V
21.0V
-21.0V
VR1 100KB
VR1b 100KB
LEFT
RIGHT
INPUT LEVEL
YLW
BLU
WHT/LONG PNK
PNK/LONG BLK
⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭
J1
J2
J3
J4
P1
P2
P3
P4
PM-1201
PM-1202

4) METER P.C BOARD PM-2001, LED P.C BOARD (B) PM-1252 AND LED P.C BOARD (C) PM-2016


LED P.C BOARD (C) PM-2016
LEFT PEAK LEVEL (dB)
RIGHT PEAK LEVEL (dB)
+3
0
-5
-10
-15
-20
-26
-34
-42
D1 to 9 SLP137B
PEAK LEVEL METER LEFT ME902
PEAK LEVEL METER RIGHT ME901
METER LAMP IND901 to 904
METER P.C BOARD PM-2001
LED P.C BOARD (B) PM-1252
POWER
D1 TLR114
WHT/DOT BLK
WHT/SHORT BLK
WHT/CROSS BLK
WHT/LONG BLK
WHT
WHT/LONG GRN
WHT/LONG SKY
BLK
PM-2017
PM-1201 P9
PM-1202 P19
J9
J19
LED SENS
METER SENS
IC1 TA7318P
IC2 LB1403
IC3 LB1405
TR1 2SA968(OXY)
TR2 2SA733(Q)(R)
TR3 TR4 2SC2240 (GR)(BL)
2SA968
2SA733
2SC2240
E C B
B C E
D1 GP080
D2 GP080
D3 RD.8.2E(C)
D4 1S2473
FR1 1/8W 10
R7 1/2W 270
R1 2W 1.2K
R2 2W 1.2K
VR1 1KB
VR2 2.2KB

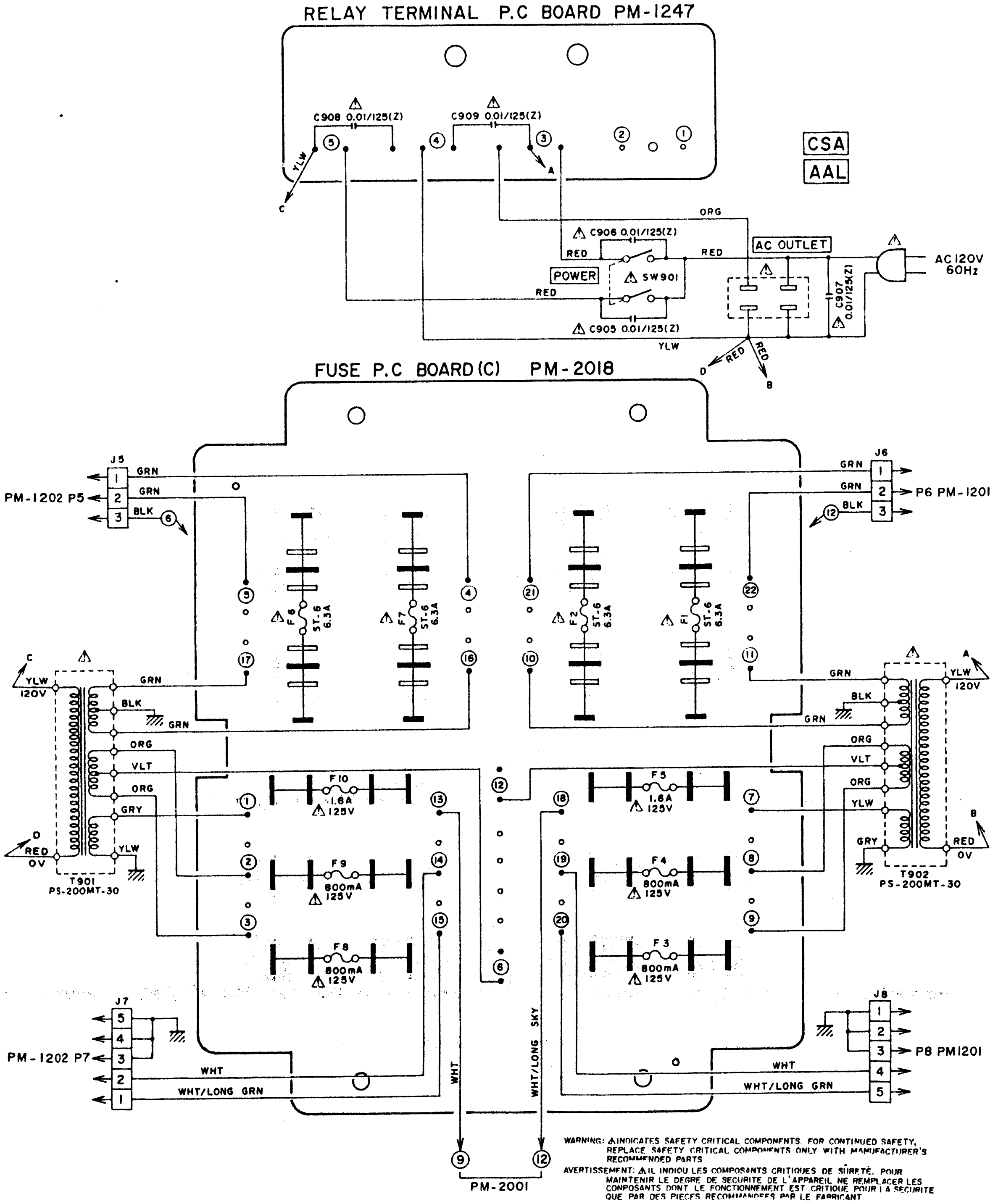
5) FUSE P.C BOARD (U) PM-2017 (U/T)


POWER
C905 ⚠
SW901
C906 ⚠
AC OUTLET
C907
U/T
⚠
AC110V to 240V
50/60Hz
C905 to 907
0.047/250(M)
BRN
ORG
RED
YLW
⚠ T901
PS-200MT-70
61.0V AC
BLK
0V
61.0VAC
ORG
77.5VAC
0V
ORG
77.5V AC
GRY
7.6VAC
YLW
0V
BLU
240V
WHT
220V
BRN
110V
RED
⚠ T902
PS-200MT-70
F10
T3.15A
F11
T3.15A
F12
T6.3A
F7
T3.14A
F8
T3.14A
F9
T6.3A
C1 0.047/250(M)
C2 0.047/250(M)
F6
1.6A
250V
F5
800mA
250V
F4
800mA
250V
F3
1.6A
250V
F2
800mA
250V
F1
800mA
250V
GRN
VLT
GRN
J7
PM-1202 P7
WHT
WHT/LONG GRN
J8
P8 PM-1201
J5
PM-1202 P5
BLK
GRN
GRN
J6
P6 PM-1201
WHT
WHT/LONG SKY
PM-2001

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

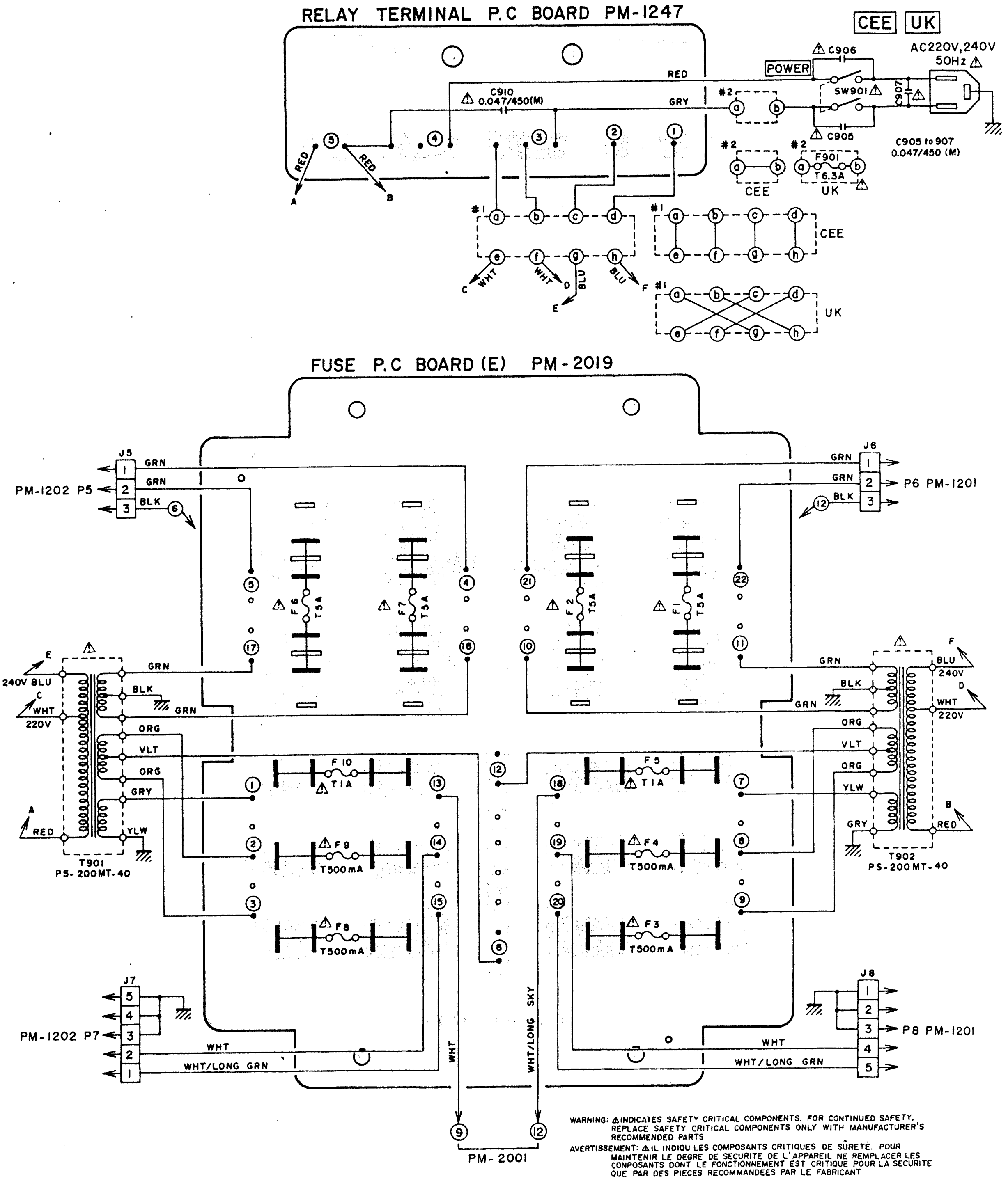
6) FUSE P.C BOARD (C) PM-2018 AND RELAY TERMINAL P.C BOARD PM-1247 (CSA, AAL)


RELAY TERMINAL P.C BOARD PM-1247
⚠ C908 0.01/125(Z)
⚠ C909 0.01/125(Z)
CSA
AAL
ORG
⚠ C906 0.01/125(Z)
RED
RED
AC OUTLET
POWER
⚠ SW901
RED
⚠ C905 0.01/125(Z)
C907 0.01/125(Z) ⚠
YLW
AC 120V 60Hz
FUSE P.C BOARD (C) PM-2018
J5
GRN
GRN
BLK
PM-1202 P5
J6
GRN
GRN
BLK
P6 PM-1201
⚠ F6 ST-6 6.3A
⚠ F7 ST-6 6.3A
⚠ F2 ST-6 6.3A
⚠ F1 ST-6 6.3A
YLW 120V
BLK
GRN
ORG
VLT
ORG
GRY
RED 0V
YLW
T901 PS-200MT-30
T902 PS-200MT-30
F10 1.6A ⚠ 125V
F9 800mA ⚠ 125V
F8 800mA ⚠ 125V
F5 1.6A ⚠ 125V
F4 800mA ⚠ 125V
F3 800mA ⚠ 125V
J7
PM-1202 P7
WHT
WHT/LONG GRN
J8
P8 PM1201
WHT
WHT/LONG SKY
PM-2001

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

7) FUSE P.C BOARD (E) PM-2019 AND RELAY TERMINAL P.C BOARD PM-1247 (CEE, UK)


RELAY TERMINAL P.C BOARD PM-1247
CEE
UK
AC220V,240V
50Hz ⚠
⚠ C906
POWER
SW901⚠
C907 ⚠
⚠ C905
C905 to 907
0.047/450 (M)
RED
GRY
C910
⚠ 0.047/450(M)
#2
#1
F901
T6.3A ⚠
a
b
c
d
e
f
g
h
RED
A
B
WHT
C
D
BLU
E
F
FUSE P.C BOARD (E) PM-2019
J5
GRN
BLK
PM-1202 P5
J6
P6 PM-1201
⚠ F6 T5A
⚠ F7 T5A
⚠ F2 T5A
⚠ F1 T5A
F10 ⚠ T1A
F5 ⚠ T1A
⚠ F9 T500mA
⚠ F8 T500mA
⚠ F4 T500mA
⚠ F3 T500mA
240V BLU
WHT 220V
ORG
VLT
GRY
YLW
T901
PS-200MT-40
T902
PS-200MT-40
240V
220V
J7
PM-1202 P7
J8
P8 PM-1201
WHT
WHT/LONG GRN
WHT/LONG SKY
PM-2001

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

SECTION 2

PARTS LIST

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4. FILTER P.C BOARD (PM-1203/1203S) BLOCK 79
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IV. INDEX

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Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

51–56 leer

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read List

The reference number corresponds with illustration or photo number of that particular parts list.

This number corresponds with the Figure Number.

This number corresponds with the individual parts index number in that figure.

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

12-115x

Schematic Diagram Number of individual manufactured part.
(not required for parts order)

Quantity of particular part required.

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK #13		
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of Components of the Schematic Diagram or Service Manual.
5. Please utilize separate "Common List for Service Parts" for Resistor Parts orders.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

CAUTION:
1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts List) may be partially changed, please use this parts list for all future reference.

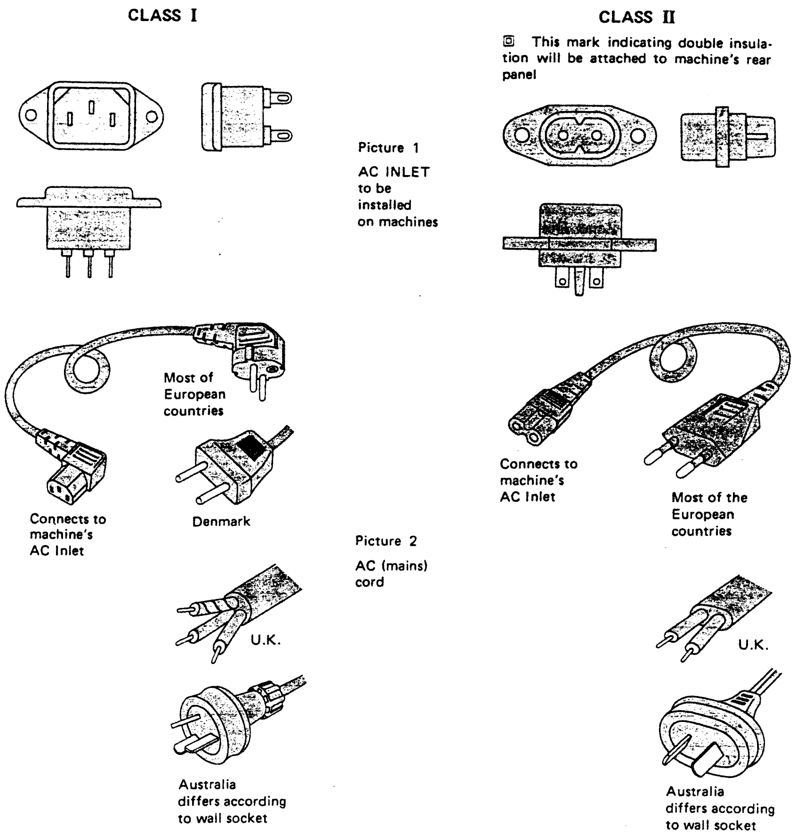
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

AC INLET SYSTEM

This model is equipped with an AC INLET SYSTEM. Please refer to the AC INLET SYSTEM CHART below for the specific type. By the AC INLET SYSTEM, AC (mains) cord can be connected to and disconnected from the model because the model is provided with socket exclusively for AC (mains) cord on its main body.
Please note, however, that certain models are not equipped with this system and has a built-in AC (mains) cord as before.

AC INLET SYSTEM CHART


CLASS I
CLASS II
⧈ This mark indicating double insulation will be attached to machine's rear panel
Picture 1
AC INLET to be installed on machines
Most of European countries
Connects to machine's AC Inlet
Denmark
Picture 2
AC (mains) cord
U.K.
Australia differs according to wall socket
Connects to machine's AC Inlet
Most of the European countries
U.K.
Australia differs according to wall socket

Parts List for AC (mains) Cord Set

Standard		Description	Type of AC Inlet	Parts No.
Class I	CEE	Cord Set CEE (3 cores)	3P	EW302993
	BEAB	Cord Set BEAB (3 cores)	3P	EW302994
	SAA	Cord Set SAA (3 cores)	3P	EW302996
	U/T	Cord Set U/T (3 cores)	3P	EW302646
Class II	CEE	Cord Set CEE (2 cores)	2P	EW638144
	BEAB	Cord Set BEAB (2 cores)	2P	EW302995
	SAA	Cord Set SAA (2 cores)	2P	EW302991
	U/T	Cord Set U/T (2 cores)	2P	EW302899

I. MODEL PS-200C

1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Note
BA311370	Power Supply P.C Board Comp. PS-200C	
BA313970	Pre Amp P.C Board Comp. PS-200C	(New Type)
BT311809	⚠ Power Trans. PS-200CT-30	(CSA)
BT311810	⚠ Power Trans. PS-200CT-40	(CEE, UK)
BT311811	⚠ Power Trans. PS-200CT-70	(U/T)
ED311794	LED SY405T	
ED245430	Silicon Diode GP08G	
ED624903	Silicon Diode 1S2473	
ED490511	Varistor VD1222	
ED311752	Zener Diode RD-22E (C)	
ED311853	Zener Diode RD-6.2E (C)	
EF306088	⚠ Fuse 315mA 125V	(CSA)
EF306125	⚠ Fuse 315mA 250V	(U/T)
EF309391	⚠ Fuse 800mA 125V	(CSA)
EF309388	⚠ Fuse 800mA 250V	(U/T)
EF300596	⚠ Fuse (FST) 200mAT	(CEE, UK)
EF300598	⚠ Fuse (FST) 315mAT	(CEE, UK)
EI311789	IC TA72220P	
EP249344	Reed Relay, L Type L24	
ES664222	⚠ Push SW. SDG-5P TV-5 U/C	SW901 (U/T, CSA)
ES665807	⚠ Push SW. SDG-5P 5A/80A 250V	SW901 (CEE, UK)
ES311799	Lever SW. SLA22301	
ES311797	Lever SW. SLA24201	(Old Type)
ES311798	Lever SW. SLA24301	
ES315601	Lever SW. SLA26301	(New Type)
ES311803	Rotary SW. SR-26 (PH-2)N 2-4-5 20KC	
ES311802	Rotary SW. SR-26 (PH-2)N 4-8-6 20KC	
ES246227	Slide SW. SSC323E	
ET302465	FET 2SK117 (SPECIAL)	
ET311792	FET 2SK150 (GR) (Y)	
ET311791	Transistor 2SA968 (O) (Y)	
ET305463	Transistor 2SA970 (GR) (BL)	
ET301165	Transistor 2SB631K (E) (F)	
ET311790	Transistor 2SC2238 (O) (Y)	
ET307195	Transistor 2SC2240 (GR) (BL)	
ET300931	Transistor 2SD600K (E) (F)	
EV311795	Double Axial 6-Throw/Vol. (Detent) WKHQ110	(Old Type)
EV315600	Double Axial 6-Throw/Vol. (Detent) WKHQ110C01	(New Type)
EV618052	Semi-Fixed/Vol. CR19R 1KB	
EV312338	Semi-Fixed/Vol. CR19R 22KB	
EV311796	2 Throw/Vol. (Detent) GH30E 24K (SPECIAL)×2	

2. PRE AMP P.C BOARD (PC-2056/2056S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
2-1	BA313970	Pre Amp P.C Board Comp. PS-200C (New Type)	PC-2056
2-TR1	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR2	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR3	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR4,5	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR6	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR7	ET311792	FET 2SK150(GR)(Y)	45-12-22
2-TR8,9	ET302465	FET 2SK117(SPECIAL)	45-12-16
2-TR10to12	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR13	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR14,15	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR16	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR17	ET300931	Transistor 2SD600K(E)(F)	45-1-278
2-TR18	ET301165	Transistor 2SB631K(E)(F)	45-1-277
2-TR21to24	ET302465	FET 2SK117 (SPECIAL)	45-12-16
2-TR25to27	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR28	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR29,30	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR31	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR32	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR33,34	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR35	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-D1	ED490511	Varistor VD1222	45-10-7
2-D2to4	ED624903	Silicon Diode 1S2473	45-3-28
2-D5,6	ED490511	Varistor VD1222	45-10-7
2-D7to9	ED624903	Silicon Diode 1S2473	45-3-28
2-D10	ED490511	Varistor VD1222	45-10-7
2-RL1	EP249344	Reed Relay, L Type L24	47-2-28
2-VR1	EV315600	Double-Axial 6-Throw/Vol. (Detent) WKHQ110C01(New Type)	36-37-7
2-VR1	EV311795	Double-Axial 6-Throw/Vol. (Detent) WKHQ110 (Old Type)	36-37-3
2-VR2	EV311796	2-Throw/Vol. (Detent) GH30E 24K(SPECIAL)×2	36-37-7
2-VR3	EV311796	2-Throw/Vol. (Detent) GH30E 24K(SPECIAL)×2	36-37-7
2-VR4	EV618052	Semi-Fixed/Vol. CR19R 1KB	36-28-4
2-SW1	ES311798	Lever SW. SLA24301	25-12-52
2-SW2	ES311799	Lever SW. SLA22301	25-12-53
2-SW3	ES315601	Lever SW. SLA26301 (New Type)	25-12-64
2-SW3	ES311797	Lever SW. SLA24201 (Old Type)	25-12-51
2-C8	EC311780	NP/C. 4.7µF 50WV	24-17-33
2-C16	EC312462	Styrol/C. 560PF(K) 50WV	24-11-14
2-C17	EC311788	Polypro. Film/C. 0.15µF(G) 100WV	24-22-3
2-C18	EC311787	Polypro. Film/C. 0.039µF(G) 100WV	24-22-3
2-C19	EC311786	Polypro. Film/C. 0.0033µF(G) 100WV	24-22-3
2-C23	EC311780	NP/C. 4.7µF 50WV	24-17-33
2-C30	EC311781	NP/C. 22µF 50WV	24-17-33
2-C32	EC311780	NP/C. 4.7µF 50WV	24-17-33
2-C35	EC311782	NP/C. 47µF 50WV	24-17-33
2-C49	EC311778	NP/C. 1µF 50WV	24-17-33
2-C50	EC311780	NP/C. 4.7µF 50WV	24-17-33
2-C51	EC311780	NP/C. 4.7µF 50WV	24-17-33
2-R1	ER310323	Metal Film/R. 1/4W 10 ohms (F)	35-17-12
2-R2	ER311751	Metal Film/R. 1/4W 100 ohms (F)	35-17-12
2-R5,6	ER312461	Metal Film/R. 1/4W 820 ohms (F)	35-17-12
2-R28,29	ER311875	Metal Film/R. 1/4W 330 ohms (F)	35-17-12
2-R31	ER311772	Metal Film/R. 1/4W 39 ohms (F)	35-17-12
2-R40	ER311753	Metal Film/R. 1/4W 21K (F)	35-17-12
2-R41	ER311754	Metal Film/R. 1/4W 1.78K (F)	35-17-12
2-R46,47	ER311755	Metal Oxide Film/R. 1W 15 ohms (K)	35-15-10
2-R51	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
2-R52	ER311759	Metal Film/R. 1/4W 82K (F)	35-17-12
2-R53	ER311760	Metal Film/R. 1/4W 18K (F)	35-17-12
2-R54	ER311761	Metal Film/R. 1/4W 4.3K (F)	35-17-12
2-R55	ER310324	Metal Film/R. 1/4W 1K (F)	35-17-12
2-R63	ER311773	Metal Film/R. 1/4W 3.3K (F)	35-17-12
2-R64	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
2-R75	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
2-R76,77	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R80	ER311762	Metal Film/R. 1/4W 9.1K (F)	35-17-12
2-R81	ER311763	Metal Film/R. 1/4W 2.4K (F)	35-17-12
2-R82	ER310436	Metal Film/R. 1/4W 3.9K (F)	35-17-12
2-R83	ER311764	Metal Film/R. 1/4W 750 ohms (F)	35-17-12
2-R84	ER311765	Metal Film/R. 1/4W 110 ohms (F)	35-17-12
2-R85	ER311766	Metal Film/R. 1/4W 47K (F)	35-17-12
2-R86	ER311767	Metal Film/R. 1/4W 1.2K (F)	35-17-12
2-R87	ER311768	Metal Film/R. 1/4W 270 ohms (F)	35-17-12
2-R102,103	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R105	ER310326	Metal Film/R. 1/4W 10K (F)	35-17-12
2-R106	ER310328	Metal Film/R. 1/4W 36K (F)	35-17-12
2-2	ZS421740	Screw, Pan 3×8 (Black)	

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

3. POWER SUPPLY P.C BOARD (PC-2003/2003S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
3-1	BA311370	Power Supply P.C Board Comp. PS-200C	PC-2054
3-IC1	EI311789	IC TA7220P	45-8-327
3-TR1	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR2	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR3	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
3-TR4	ET311791	Transistor 2SA968(O)(Y)	45-1-338
3-TR5	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR6	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR7	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR8	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR9	ET300931	Transistor 2SD600K(E)(F)	45-1-278
3-TR10	ET301165	Transistor 2SB631K(E)(F)	45-1-277
3-TR11	ET300931	Transistor 2SD600K(E)(F)	45-1-278
3-D1to5	ED245430	Silicon Diode GP08G	45-2-68
3-D6,7	ED490511	Varistor VD1222	45-10-7
3-D8	ED311752	Zener Diode RD-22E (C)	45-6-72
3-D9	ED490511	Varistor VD1222	45-10-7
3-SW1	ES311797	Lever SW. SLA24201	25-12-51
3-VR1	EV312338	Semi-Fixed/Vol. CR19R 22KB	36-28-4
3-R7	ER312460	Carbon/R. F 1/2W 15 ohms (J)	35-11-27
3-R12,13	ER311748	Metal Film/R. 1/4W 22K (F)	35-17-12
3-R29	ER483287	Metal Oxide Film/R. 2W 100 ohms (K)	35-15-8
3-2	ZS421740	Screw, Pan 3x8 (Black)	

4. SELECTOR P.C BOARD (PC-2001/2001S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
4-TR1	ET635220	Transistor 2SC945L(K)(P)	45-1-85
4-TR2	ET300931	Transistor 2SD600K(E)(F)	45-1-278
4-D1	ED311853	Zener Diode RD-6.2E(C)	45-6-72
4-RL1	EP249344	Reed Relay L Type L24	47-2-28
4-SW1	ES311802	Rotary SW. SR-26(PH-2)N 4-8-6 20KC	25-6-164
4-SW2	ES311803	Rotary SW. SR-26(PH-2)N 2-4-5 20KC	25-6-165
4-J1	EJ312463	6P Pin Jack	31-5-147
4-J2	EJ293376	6P Pin Jack	31-1-198
4-J3,4	EJ293365	4P Pin Jack	31-1-197
4-J5	EJ312464	2P Pin Jack	31-5-148
4-C2	EC662128	Solid Aluminum/C. (Vert.) 2.2μF(M) 25WV	24-19-2
4-C5	EC311780	NP/C. 4.7μF 50WV	24-17-33
4-R1	ER311774	Metal Film/R. 1/4W 91K (F)	35-17-12
4-R7	ER311876	Metal Oxide Film/R. 3W 1.5K (K)	35-15-9

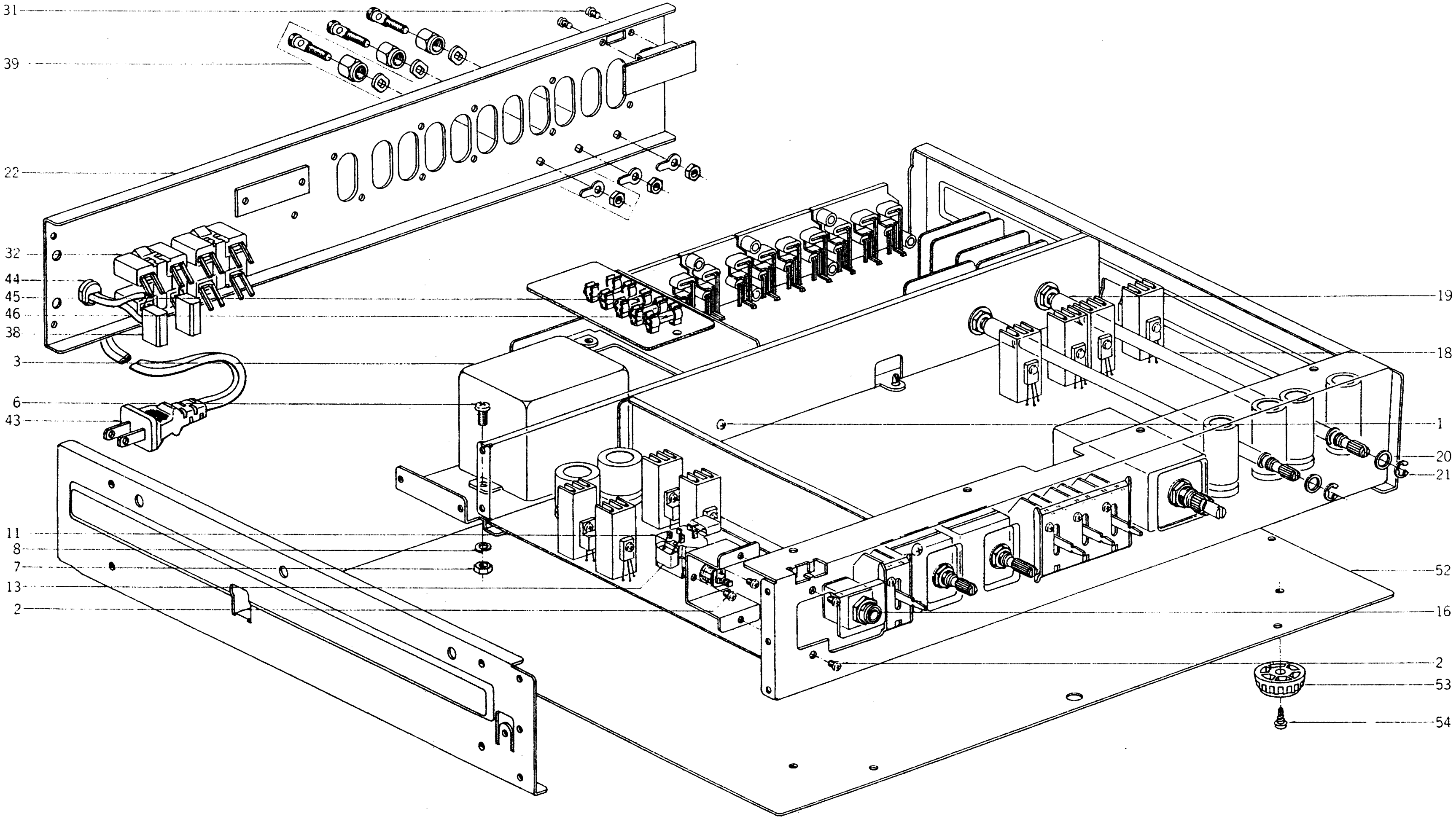
5. IMPEDANCE CHANGE P.C BOARD (PC-2033) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
5-SW1	ES246227	Slide SW. SSC323E	25-3-119
5-R1	ER311774	Metal Film/R. 1/4W 91K (F)	35-17-12
5-R2	ER311775	Metal Film/R. 1/4W 51K (F)	35-17-12

6. LED P.C BOARD (PM-1252) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
6-D1	ED311794	LED SY405T	45-15-24

7. ASSEMBLY BLOCK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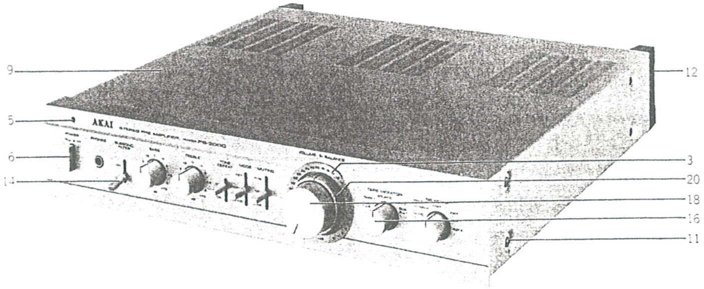
7. ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
7-1	ZS308846	Tapping Screw, #2, 3x8 (BR) (Oval Neck)	7-1-69
7-2	ZS608477	Screw, Pan 3x4	
7-3	BT311811	⚠ Power Trans. PS-200CT-70 (U/T)	38-4-685
7-4x	BT311809	⚠ Power Trans. PS-200CT-30 (CSA)	38-4-687
7-5x	BT311810	⚠ Power Trans. PS-200CT-40 (CEE, UK)	38-4-686
7-6	ZS537006	Screw, Bind 4x8 (Black)	
7-7	ZW413188	Nut, #1, M4	
7-8	ZW273914	Spring Washer, M4	
7-9x	ZS201778	Screw, Pan 4x8	
7-10x	ZW413188	Nut, #1, M4	
7-11	ES664222	⚠ Push SW. SDG-5P TV-5 U/C (U/T, CSA)	25-5-202
7-12x	ES665807	⚠ Push SW. SDG-5P 5A/80A 250V (CEE, UK)	25-5-182
7-13	EC283375	⚠ MP/C. 0.047µF(M) 250WV (U/T)	24-9-118
7-14x	EC286198	⚠ Ceramic/C. AL-10 0.01µF(Z) 125WV (CSA)	24-5-69
7-15x	EC301320	⚠ MP/C. 4700PF(M) 250WV (CEE, UK)	24-9-122
7-16	EJ311808	Headphone Jack	31-2-100
7-17x	ZS311745	Tapping Screw, #2, 3x8 (BR) W=8 (Black)	
7-18	MS311709	Relay Shaft	PC-2008
7-19	TA646773	Joint	AA5240
7-20	ZW322110	Washer (Nylon) D6.1x10x1T	
7-21	ZW270123	'E' Ring 4M	6-1-9
7-22	SP311718	Rear Panel (U) (U/T)	PC-2014
7-23x	SP311719	Rear Panel (A) (CSA)	PC-2014
7-24x	SP311720	Rear Panel (E) (CEE)	PC-2015
7-25x	SP311721	Rear Panel (B) (UK)	PC-2015
7-26x	ZW312470	Nut, M9	25-6-164
7-27x	ZW312471	Washer D9	25-6-164
7-28x	ZW312472	Nut, M9	25-6-165
7-29x	ZW312473	Washer D9	25-6-165
7-30x	ZS522865	Tapping Screw, #2, 3x12 (BR) (Black)	
7-31	ZS608185	Screw, Pan 2.6x4	
7-32	EZ225145	⚠ 2-Throw AC Outlet (U/T, CSA)	31-1-166
7-33x	EJ296853	⚠ 3P In-let CM-3 (CEE, UK)	31-1-199
7-34x	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	
7-35x	EC301320	⚠ MP/C. 4700PF(M) 250WV (CEE, UK)	24-9-122
7-36x	EC286198	⚠ Ceramic/C. AL-10 0.01µF(Z) 125WV (CSA)	24-5-69
7-37x	EC301320	⚠ MP/C. 4700PF(M) 250WV (CEE, UK)	24-9-122
7-38	EC283375	⚠ MP/C 0.047µF(M) 250WV (U/T)	24-9-118
7-39	EJ311812	Earth Terminal	32-1-97
7-40x	EC427228	Ceramic/C. DD111FZ 0.047µF(Z) 50WV	24-5-65
7-41x	EC427228	Ceramic/C. DD111FZ 0.047µF(Z) 50WV	24-5-65
7-42x	EC427228	Ceramic/C. DD111FZ 0.047µF(Z) 50WV	24-5-65
7-43	EW311816	⚠ Power Cord 125V 13A (U/T, CSA)	26-3-75
7-44	EZ631945	Strain Relief SR-4N-4 (U/T, CSA)	2-7-49
7-45	EF309388	⚠ Fuse 800MA 250V (U/T)	39-1-64
7-46	EF306125	⚠ Fuse 315MA 250V (U/T)	39-1-64
7-47x	EF309391	⚠ Fuse 800MA 125V (CSA)	39-1-65
7-48x	EF306088	⚠ Fuse 315MA 125V (CSA)	39-1-65
7-49x	EF300598	⚠ Fuse (FST) 315MAT (CEE, UK)	39-1-61
7-50x	EF300596	⚠ Fuse (FST) 200MAT (CEE, UK)	39-1-61

Ref. No.	Parts No.	Description	Schematic No.
	FINAL ASSEMBLY BLOCK		
7-51x	ZS311746	Tapping Screw, #2, 3x8 (Oval Neck)	7-1-69
7-52	SP311722	Bottom Plate	PC-2016
7-53	SA311742	Circular Foot	PC-2032
7-54	ZS311747	Tapping Screw, #2, Pan 4x8 (Black)	

8. FINAL ASSEMBLY BLOCK



8. FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
		FRONT PANEL BLOCK	
8-1	BD313972	Front Panel Block Comp. PS-200C (New Type)	
8-2x	BD313973	Front Panel Block Comp. PS-200C-BL (New Type)	
8-3	TA311726	Memory Plate	PC-2019/2020
8-4x	TA311727	Memory Plate (BL)	PC-2019/2020
8-5	SE311728	Power Lens	PC-2021
8-6	SB312474	Button	PC-2042
8-7x	SB312475	Button (BL)	PC-2042
8-8x	ZG312478	Spring	PC-2045
		FINAL ASSEMBLY BLOCK	
8-9	BC311730	Case	PC-2023
8-10x	BC312352	Case (BL)	PC-2023
8-11	ZS537006	Screw, Bind 4x8 (Black)	
8-12	SA311714	Foot	PC-2029
8-13x	ZS411232	Screw, Bind 4x8	
8-14	ML311733	Lever (B)	PC-2025
8-15x	ML311734	Lever (B-BL)	PC-2025
8-16	SK311735	Knob	PC-2026
8-17x	SK311736	Knob (BL)	PC-2026
8-18	SK311737	Double Knob (Upper)	PC-2027
8-19x	SK311738	Double Knob (Upper-BL)	PC-2027
8-20	SK311739	Double Knob (Lower)	PC-2028
8-21x	SK311740	Double Knob (Lower-BL)	PC-2028

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

II. MODEL PS-120M

1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Note
BA311438	Filter P.C Board Comp. PS-120M	
BA311432	Main Amp P.C Board (L) Comp. PS-120M	
BA311436	Main Amp P.C Board (R) Comp. PS-120M	
BA311440	Meter P.C Board Comp. PS-120M	
BT311862	⚠ Power Trans. PS-120MT-30	(CSA)
BT311860	⚠ Power Trans. PS-120MT-40	(CEE, UK)
BT311859	⚠ Power Trans. PS-120MT-70	(U/T)
EC311688	Elect./C. 10000μF 71WV	
ED311794	LED SY405T	
ED311857	LED TLR114	
ED300924	Silicon Diode GP08D	
ED311849	Silicon Diode SS-3A	
ED311851	Silicon Diode SS-3AR	
ED311852	Silicon Diode 1S2471	
ED624903	Silicon Diode 1S2473	
ED490511	Varistor VD1222	
ED311854	Zener Diode RD-11E (C)	
ED311752	Zener Diode RD-22E (C)	
ED311864	Zener Diode RD-3.3E (C)	
ED311853	Zener Diode RD-6.2E (C)	
EF303348	⚠ Fuse ST-6 6.3A	(CSA)
EF308847	⚠ Fuse 1.6A 125V	(CSA)
EF311839	⚠ Fuse 1.6A 250V	(U/T)
EF305703	⚠ Fuse 630mA 125V	(CSA)
EF306124	⚠ Fuse 630mA 250V	(U/T)
EF300577	⚠ Fuse (EAK) 5AT	(CEE, UK)
EF623103	⚠ Fuse (SEMKO T) 1AT	(CEE, UK)
EF691007	⚠ Fuse (SEMKO T) 3.15AT	(U/T)
EF668474	⚠ Fuse (SEMKO T) 400mAT	(CEE, UK)
EF242605	⚠ Fuse (SEMKO T) 6.3AT	(U/T)
EI311855	IC LB1405	
EI308865	IC TA7318P	
EL311833	Lamp (Cord Type) 8V 300mA (200mmx2)	
EM311863	Meter KL-65L-100	
EP311858	Relay MSJ48D2-0Z	
ES311805	⚠ Lever SW. SY02-2 (U85DMU, C)	(U/T, CSA)
ES311806	⚠ Lever SW. V85DV	(CEE, UK)
ES311690	Push SW. J-K2014	
ET302465	FET 2SK117 (SPECIAL)	
ET311792	FET 2SK150 (GR) (Y)	
ET557965	Transistor 2SA733 (Q) (R)	

Parts No.	Description	Note
ET311845	Transistor 2SA899 (B) (V)	
ET311844	Transistor 2SA949 (O) (Y) AKAI	
ET311791	Transistor 2SA968 (O) (Y)	
ET305463	Transistor 2SA970 (GR) (BL)	
ET311847	Transistor 2SB681 (O) (R) AKAI	
ET311865	Transistor 2SC1904 (B) (V)	
ET312485	Transistor 2SC2229 (O) (Y) AKAI	
ET311790	Transistor 2SC2238 (O) (Y)	
ET307195	Transistor 2SC2240 (GR) (BL)	
ET635220	Transistor 2SC945L (K) (P)	
ET311846	Transistor 2SD551 (O) (R) AKAI	
ET300931	Transistor 2SD600K (E) (F)	
EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	
EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	
EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	
EV311834	Vol. V24L52PHN25KC 100KB	
EV311835	Semi-Fixed/Vol. (Solid) CR29R 2.2KB	

2. MAIN AMP P.C BOARD (L) (PM-1201/1201S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
2-1	BA311432	Main Amp P.C Board(L) Comp. PS-120M	PM-1201
2-TR1,2	ET302465	FET 2SK117(SPECIAL)	45-12-16
2-TR3	ET311792	FET 2SK150(GR)(Y)	45-12-22
2-TR4to7	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR8,9	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR10	ET311845	Transistor 2SA899(B)(V)	45-1-341
2-TR11	ET311865	Transistor 2SC1904(B)(V)	45-1-342
2-TR13to15	ET635220	Transistor 2SC945L(K)(P)	45-1-85
2-TR16,17	ET557965	Transistor 2SA733(Q)(R)	45-1-124
2-TR18	ET635220	Transistor 2SC945L(K)(P)	45-1-85
2-TR19	ET312485	Transistor 2SC2229(O)(Y) AKAI	45-1-349
2-TR20	ET311844	Transistor 2SA949(O)(Y) AKAI	45-1-340
2-TR21	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
2-TR22	ET311791	Transistor 2SA968(O)(Y)	45-1-338
2-TR23	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR24,25	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR26	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR27	ET307195	Transistor 2SC2240(GR)(BL)	45-1-302
2-TR28	ET305463	Transistor 2SA970(GR)(BL)	45-1-303
2-TR29	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
2-TR30	ET311791	Transistor 2SA968(O)(Y)	45-1-338
2-D1,2	ED624903	Silicon Diode 1S2473	45-3-28
2-D4to7	ED311852	Silicon Diode 1S2471	45-3-52
2-D8,9	ED624903	Silicon Diode 1S2473	45-3-28
2-D10,11	ED311852	Silicon Diode 1S2471	45-3-52
2-D12to15	ED311864	Zener Diode RD-3.3E(C)	45-6-72
2-D16	ED311849	Silicon Diode SS-3A	45-2-87
2-D17	ED311851	Silicon Diode SS-3AR	45-2-88
2-D18to21	ED300924	Silicon Diode GP08D	45-2-68
2-D23,24	ED311752	Zener Diode RD-22E(C)	45-6-72
2-D25,26	ED490511	Varistor VD1222	45-10-7
2-L1	EO551711	Phase Compensation Coil 2.2μH (±30%)	23-1-188
2-VR1	EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	36-28-6
2-VR2	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
2-VR3,4	EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	36-28-6
2-P2	EJ311841	Micro Connector W-P1302	42-1-154
2-P4	EJ311841	Micro Connector W-P1302	42-1-154
2-P6	EJ207854	3P Plug. PC	42-1-96
2-P8	EJ311843	Micro Connector W-P1305	42-1-154
2-P9	EJ311841	Micro Connector W-P1302	42-1-154
2-P11	EJ699355	6P Plug, PC	42-1-95
2-P13	EJ699355	6P Plug, PC	42-1-95
2-P15	EJ311840	2P Plug W-P3002	42-1-152
2-P17	EJ207854	3P Plug, PC	42-1-96
2-P21	EJ311842	Micro Connector W-P1303	42-1-154
2-R1	ER311751	Metal Film/R. 1/4W 100 ohms (F)	35-17-12
2-R2	ER311672	Metal Film/R. 1/4W 150K (F)	35-17-12
2-R5,6	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
2-R7,8	ER311671	Metal Film/R. 1/4W 180 ohms (F)	35-17-12
2-R9,10	ER312324	Metal Film/R. 1/4W 68 ohms (F)	35-17-12
2-R16,17	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
2-R18,19	ER311663	Carbon/R. F 1/4W 68 ohms (J)	35-11-25
2-R21	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
2-R22	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
2-R23	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
2-R25	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
2-R27	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R28	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
2-R29	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R32,33	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R35	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R37	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R38,39	ER311683	Metal Oxide Film/R. 3W 3.3K (K)	35-15-9
2-R40,41	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
2-R42,43	ER310843	Carbon/R. F 1/4W 680 ohms (J)	35-11-25
2-R47to50	ER311669	Carbon/R. F 1/4W 3.3K (J)	35-11-25
2-R51,52	ER311662	Carbon/R. F 1/4W 22 ohms (J)	35-11-25
2-R53,54	ER310147	Carbon/R. F 1/4W 10 ohms (J)	35-11-25
2-R55,56	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R57,58	ER439132	Metal Oxide Film/R. 2W 150 ohms (K)	35-15-8
2-R59to62	ER622978	Metal Plate/R. MPC71F1 5W 0.47 ohms (K)	35-16-48
2-R67,68	ER312486	Metal Oxide Film/R. 2W 4.7 ohms (K)	35-15-18
2-R69,70	ER380856	Metal Oxide Film/R. 2W 10 ohms (K)	35-15-8
2-R71,72	ER311665	Carbon/R. F 1/4W 560 ohms (J)	35-11-25
2-R75,76	ER311673	Metal Oxide Film/R. 2W 3.3K (K)	35-15-8
2-R81,82	ER308875	Carbon/R. F 1/2W 10 ohms (J)	35-11-27
2-R83,84	ER312487	Metal Oxide Film/R. 2W 2.2K (K)	35-15-8
2-2	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	

3. MAIN AMP P.C BOARD (R)
(PM-1202/1202S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
3-1	BA311436	Main Amp P.C Board (R) Comp. PS-120M	PM-1202
3-TR1,2	ET302465	FET 2SK117 (SPECIAL)	45-12-16
3-TR3	ET311792	FET 2SK150 (GR) (Y)	45-12-22
3-TR4to7	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR8,9	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR10	ET311845	Transistor 2SA899(B)(V)	45-1-341
3-TR11	ET311865	Transistor 2SC1904(B)(V)	45-1-342
3-TR13to15	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR16,17	ET557965	Transistor 2SA733(Q)(R)	45-1-124
3-TR18	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR19	ET312485	Transistor 2SC2229(O)(Y) AKAI	45-1-349
3-TR20	ET311844	Transistor 2SA949(O)(Y) AKAI	45-1-340
3-TR21	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
3-TR22	ET311791	Transistor 2SA968(O)(Y)	45-1-338
3-TR23	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR24,25	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR26	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR27	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR28	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR29	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
3-TR30	ET311791	Transistor 2SA968(O)(Y)	45-1-338
3-TR31	ET557965	Transistor 2SA733(Q)(R)	45-1-124
3-TR32to34	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR35	ET300931	Transistor 2SD600K(E)(F)	45-1-278
3-TR36	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-D1,2	ED624903	Silicon Diode 1S2473	45-3-28
3-D4to7	ED311852	Silicon Diode 1S2471	45-3-52
3-D8,9	ED624903	Silicon Diode 1S2473	45-3-28
3-D10,11	ED311852	Silicon Diode 1S2471	45-3-52
3-TR12to15	ED311864	Zener Diode RD-3.3E (C)	45-6-72
3-D16	ED311849	Silicon Diode SS-3A	45-2-87
3-D17	ED311851	Silicon Diode SS-3AR	45-2-88
3-D18to22	ED300924	Silicon Diode GP08D	45-2-68
3-D23,24	ED311752	Zener Diode RD-22E (C)	45-6-72
3-D25,26	ED490511	Varistor VD1222	45-10-7
3-D29	ED311854	Zener Diode RD-11E (C)	45-6-72
3-L1	EO551711	Phase Compensation Coil 2.2μH (±30%)	23-1-188
3-VR1	EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	36-28-6
3-VR2	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
3-VR3,4	EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	36-28-6
3-RL1	EP311858	Relay MSJ48D2-0Z	47-1-38
3-P1	EJ311841	Micro Connector W-P1302	42-1-154
3-P3	EJ311841	Micro Connector W-P1302	42-1-154
3-P5	EJ207854	3P Plug, PC	42-1-96
3-P7	EJ311843	Micro Connector W-P1305	42-1-154
3-P10	EJ699355	6P Plug, PC	42-1-95
3-P12	EJ699355	6P Plug, PC	42-1-95
3-P14	EJ311840	2P Plug, W-P3002	42-1-152
3-P16	EJ207854	3P Plug, PC	42-1-96
3-P18,19	EJ311841	Micro Connector W-P1302	42-1-154
3-P20	EJ311842	Micro Connector W-P1303	42-1-154
3-C41	EC311689	NP/C. 330μF (M) 6.3WV	24-17-31
3-C44	EC662128	Solid Aluminum/C. (Vert.) 2.2μF (M) 25WV	24-19-2
3-R1	ER311751	Metal Film/R. 1/4W 100 ohms (F)	35-17-12
3-R2	ER311672	Metal Film/R. 1/4W 150K (F)	35-17-12
3-R5,6	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
3-R7,8	ER311671	Metal Film/R. 1/4W 180 ohms (F)	35-17-12
3-R9,10	ER312324	Metal Film/R. 1/4W 68 ohms (F)	35-17-12
3-R16,17	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R18,19	ER311663	Carbon/R. F 1/4W 68 ohms (J)	35-11-25
3-R21	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R22	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
3-R23	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R25	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R27	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R28	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
3-R29	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
3-R32,33	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
3-R35	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R37	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R38,39	ER311683	Metal Oxide Film/R. 3W 3.3K (K)	35-15-9
3-R40,41	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
3-R42,43	ER310843	Carbon/R. F 1/4W 680 ohms (J)	35-11-25
3-R47to50	ER311669	Carbon/R. F 1/4W 3.3K (J)	35-11-25
3-R51,52	ER311662	Carbon/R. F 1/4W 22 ohms (J)	35-11-25
3-R53,54	ER310147	Carbon/R. F 1/4W 10 ohms (J)	35-11-25
3-R55,56	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R57,58	ER439132	Metal Oxide Film/R. 2W 150 ohms (K)	35-15-8
3-R59to62	ER622978	Metal Plate/R. MPC71F1 5W 0.47 ohms (K)	35-16-48
3-R67,68	ER312486	Metal Oxide Film/R. 2W 4.7 ohms (K)	35-15-18
3-R69,70	ER380856	Metal Oxide Film/R. 2W 10 ohms (K)	35-15-8
3-R71,72	ER311665	Carbon/R. F 1/4W 560 ohms (J)	35-11-25
3-R75,76	ER311673	Metal Oxide Film/R. 2W 3.3K (K)	35-15-8
3-R89	ER311662	Carbon/R. F 1/4W 22 ohms (J)	35-11-25
3-R95	ER309092	Metal Oxide Film/R. 2W 820 ohms (K)	35-15-8
3-R102,103	ER308875	Carbon/R. F 1/2W 10 ohms (J)	35-11-27
3-2	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	

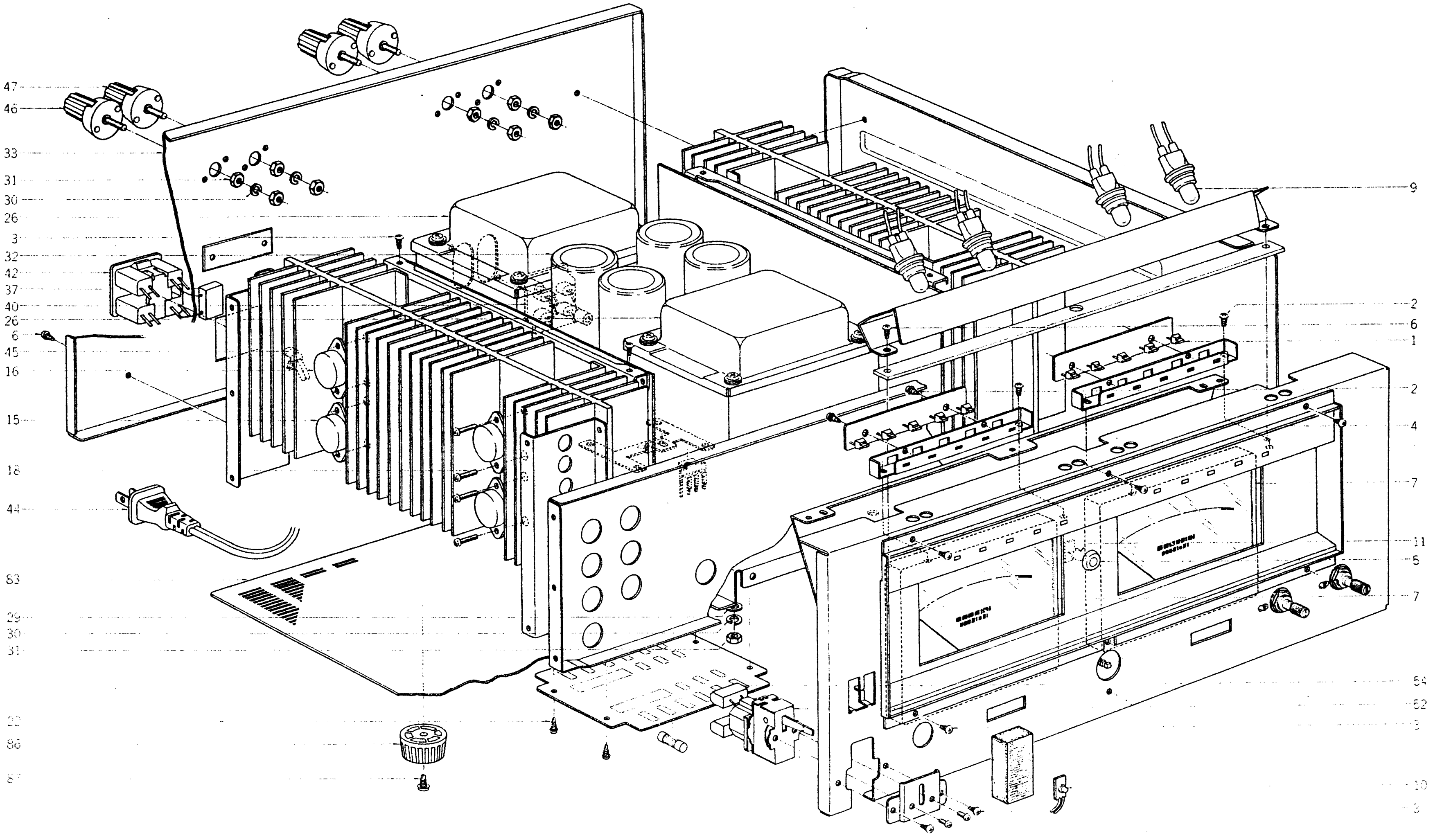
4. FILTER P.C BOARD
(PM-1203/1203S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
4-1	BA311438	Filter P.C Board Comp. PS-120M	PM-1203
4-TR1	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
4-TR2,3	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
4-TR4	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
4-VR1	EV311834	Vol. V24L52PHN25KC 100KB	36-2-44
4-SW1	ES311690	Push SW. J-K2014	25-5-312
4-C2	EC311779	NP/C. 2.2μF 50WV	24-17-33
4-2	ZS608477	Screw, Pan 3x4	

5. METER P.C BOARD
(PM-1204/1204S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
5-1	BA311440	Meter P.C Board Comp. PS-120M	PM-1204
5-IC1	EI308865	IC TA7318P	45-8-306
5-IC2	EI311855	IC LB1405	45-8-328
5-TR1	ET311791	Transistor 2SA968(O)(Y)	45-1-338
5-TR2	ET557965	Transistor 2SA733(Q)(R)	45-1-124
5-TR3,4	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
5-D1,2	ED300924	Silicon Diode GP08D	45-2-68
5-D3	ED311853	Zener Diode RD-6.2E (C)	45-6-72
5-D4	ED624903	Silicon Diode 1S2473	45-3-28
5-VR1	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
5-VR2	EV311835	Semi-Fixed/Vol. (Solid) CR29R 2.2KB	36-28-6
5-R1,2	ER312483	Metal Oxide Film/R. 2W 1.2K (K)	35-15-8
5-FR1	ER293635	Fuse/R. FRN158 1/4W 10 ohms (J) 700mA	35-14-20

6. ASSEMBLY BLOCK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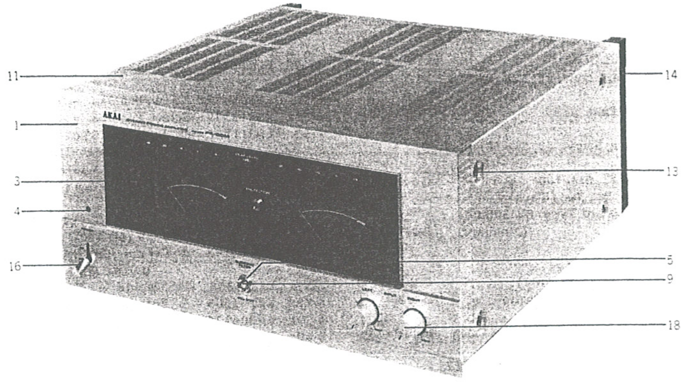
6. ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
		LED P.C BOARD (A) BLOCK	
6-1	ED311856	LED SLP137B	45-15-23
6-2	ZS447761	Tapping Screw, #2, 3x6 (BR) (Black)	
		FRONT CHASSIS BLOCK	
6-3	ZS308846	Tapping Screw, #2, 3x8 (BR) (Oval Neck)	7-1-69
6-4	ML311629	Meter Plate	PM-1218/1219
6-5	MH311627	Collar	PM-1217
6-6	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	
6-7	EM311863	Meter KL-65L-100	46-2-23
6-8x	ZS355522	Screw, Pan 3x6 (Black)	
6-9	EL311833	Lamp (Cord Type) 8V 300mA (200mmx2)	28-2-71
		LED P.C BOARD (B) BLOCK	
6-10	ED311794	LED SY405T (Power)	45-15-24
6-11	ED311857	LED TLR114 (Protection)	45-15-25
6-12x	EJ313596	Micro Connector Assy C1205 (J18)	26-6-318
		TEMP. COMPENSATION P.C BOARD BLOCK	
6-13x	ET635220	Transistor 2SC945L(K)(P) (TR1)	45-1-85
6-14x	EJ313599	Micro Connector Assy C2208 (J20, 21)	26-6329
		HEAT SINK BLOCK	
6-15	ET311847	Transistor 2SB681 (O)(R) AKAI	45-1-344
6-16	ET311846	Transistor 2SD551 (O)(R) AKAI	45-1-343
6-17x	EJ624486	Power TR. Socket	31-1-97
6-18	ZS344338	Screw, Pan 3x12	
6-19x	EJ313603	Mini Connector Assy C1103 (J10, 11)	26-6-325
6-20x	EJ313605	Mini Connector Assy C1105 (J13)	26-6-327
6-21x	EJ313604	Mini Connector Assy C1104 (J12)	26-6-326
		ASSEMBLY BLOCK	
6-22	ZS311745	Tapping Screw, #2, 3x8 (BR) W=8 (Black)	
6-23x	ZW668621	M4 Spring Washer (Black)	
6-24x	ZS608477	Screw, Pan 3x4	
6-25x	ZS201778	Screw, Pan 4x8	
6-26	BT311859	⚠ Power Trans. PS-120MT-70 (U/T)	38-4-688
6-27x	BT311862	⚠ Power Trans. PS-120MT-30 (CSA)	38-4-690
6-28x	BT311860	⚠ Power Trans. PS-120MT-40 (CEE, UK)	38-4-689
6-29	ZW237857	Washer D4.1x10x1T	
6-30	ZW273914	Spring Washer, M4	
6-31	ZW413188	Nut, #1, M4	
6-32	EC311688	Elect./C. 10000μF 71WV	24-10-130
6-33	SP311640	Rear Panel (U-1) (U/T)	PM-1229
6-34x	SP311641	Rear Panel (A-1) (CSA)	PM-1230
6-35x	SP311642	Rear Panel (E-1) (CEE)	PM-1232
6-36x	SP311643	Rear Panel (B-1) (UK)	PM-1233
6-37	EC283375	⚠ MP/C. 0.047μF(M) 250WV (U/T)	24-9-118
6-38x	EC308528	⚠ Oil Paper/C. ECN-C4A 0.047μF(M) 450WV (CEE,UK)	24-8-6
6-39x	EC286198	⚠ Ceramic/C. AL-10 0.01μF(Z) 125WV (CSA)	23-5-69
6-40	EJ312482	4P Pin Jack	31-5-149
6-41x	ZS522865	Tapping Screw, #2, 3x12 (BR) (Black)	
6-42	EZ225145	⚠ 2-Throw AC Outlet (U/T, CSA)	31-1-166
6-43x	EJ296853	⚠ 3P In-let CM-3 (CEE, UK)	31-1-199
6-44	EW311816	⚠ Power Cord 125V 13A (U/T, CSA)	26-3-75
6-45	EZ631945	Strain Relief SR-4N-4	2-7-49
6-46	EJ311695	Terminal T5689-A	32-1-99
6-47	EJ311696	Terminal T5689-B	32-1-102
6-48x	EC308528	Oil Paper/C. ECN-C4A 0.047μF (M) 450WV (CEE, UK)	24-8-6
6-49x	EC286198	Ceramic/C. AL-10 0.01μF (Z) 125WV (CSA)	24-5-69
6-50x	ZS608477	Screw, Pan 3x4	
6-51x	ZS312349	Screw, Pan 4x8	46-2-23
6-52	ES311805	⚠ Lever SW. SY02-2 (U85DMU, C) (U/T, CSA)	25-12-48
6-53x	ES311806	⚠ Lever SW. V85DV(CEE,UK)	25-12-50
6-54	EC283375	⚠ MP/C 0.047μF (M) 250WV (U/T)	24-9-118
6-55x	EC308528	⚠ Oil Paper/C. ECN-C4A 0.047μF (M) 450WV (CEE, UK)	24-8-6
6-56x	EC286198	⚠ Ceramic/C. AL-10 0.01μF (Z) 125WV (CSA)	24-5-69
6-57x	EJ314568	Fuse Holder	40-2-15
6-58x	EF242605	⚠ Fuse (SEMKO T) 6.3AT(UK)	39-1-53
6-59x	EF306124	⚠ Fuse 630mA 250V (U/T)	39-1-64
6-60x	EF311839	⚠ Fuse 1.6A 250V (U/T)	39-1-64
6-61x	EF691007	⚠ Fuse (SEMKO T) 3.15AT (U/T)	39-1-53
6-62x	EF303348	⚠ Fuse ST-6 6.3A (CSA)	39-1-63
6-63x	EF305703	⚠ Fuse 630mA 125V (CSA)	39-1-65
6-64x	EF308847	⚠ Fuse 1.6A 125V (CSA)	39-1-65
6-65x	EF300577	⚠ Fuse (EAK) 5AT (CEE, UK)	39-1-59
6-66x	EF668474	⚠ Fuse (SEMKO T) 400mAT (CEE, UK)	39-1-53
6-67x	EF623103	⚠ Fuse (SEMKO T) 1AT (CEE, UK)	39-1-53
6-68x	EJ313598	Micro Connector Assy C1207(J1)	26-6-320
6-69x	EJ313597	Micro Connector Assy C1206(J2)	26-6-319
6-70x	EJ313591	Micro Connector Assy C1201(J3)	26-6-314
6-71x	EJ313592	Micro Connector Assy C1202(J4)	26-6-315
6-72x	EJ313602	Mini Connector Assy C1102(J5,6)	26-6-324
6-73x	EJ313600	Micro Connector Assy C1209(J7,8)	26-6-322
6-74x	EJ313594	Micro Connector Assy C1203(J9)	26-6-316
6-75x	EJ313601	Mini Connector Assy C1101	26-6-323
6-76x	EJ313606	Mini Connector Assy C1106	26-6-328
6-77x	EJ313595	Micro Connector Assy C1204	26-6-317
6-78x	EW313609	Wire (A) Assy (320mm)	26-1-9
6-79x	EW313610	Wire (B) Assy (180mm)	26-1-10
6-80x	EW313611	Wire (C) Assy (230mm)	26-1-11
6-81x	EW313612	Wire (D) Assy (280mm)	26-1-12
6-82x	ZS311746	Tapping Screw, #2, 3x8 (Countersunk) (Black)	PM-1234
6-83	SP311644	Bottom Plate	
6-84x	ZW668621	M4 Spring Washer (Black)	
6-85x	ZS537006	Screw, Bind 4x8 (Black)	CA-6014
6-86	SA312465	Circular Foot (A) Part CA	
6-87	ZS311747	Tapping Screw, #2, 4x8 (Pan) (Black)	24-9-118
6-88x	EC283375	MP/C 0.047μF(M) 250WV(U/T)	

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

7. FINAL ASSEMBLY BLOCK



7. FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
7-1	BD311414	Front Panel Block Comp. PS-120M	
7-2x	BD311415	Front Panel Block Comp. PS-120M-BL	
7-3	SZ311647	Front Plate	PM-1237
7-4	SE311728	Power Lens	PC-2021
7-5	SE311652	Button Escutcheon	PM-1240
7-6x	ZG311653	Spring	PM-1241
7-7x	SB311650	Button	PM-1239
7-8x	SB311651	Button (BL)	PM-1239
7-9	SH311648	Cap	PM-1238
7-10x	SH311649	Cap (BL)	PM-1238
7-11	BC311654	Case	PM-1242
7-12x	BC312479	Case (BL)	PM-1242
7-13	ZS537006	Screw, Bind 4×8 (Black)	
7-14	SA311655	Foot	PM-1243
7-15x	ZS411232	Screw, Bind 4×10	
7-16	ML311731	Lever (A)	PC-2024
7-17x	ML311732	Lever (A-BL)	PC-2024
7-18	SK311735	Knob	PC-2026
7-19x	SK311736	Knob (BL)	PC-2026

III. MODEL PS-200M

1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Note
BA311438	Filter P.C Board Comp. PS-120M	
BA312154	Main Amp P.C Board (L) Comp. PS-200M	
BA312158	Main Amp P.C Board (R) Comp. PS-200M	
BA312162	Meter P.C Board Comp. PS-200M	
BT312422	⚠ Power Trans. PS-200MT-30	(CSA)
BT312424	⚠ Power Trans. PS-200MT-40	(CEE, UK)
BT312425	⚠ Power Trans. PS-200MT-70	(U/T)
EC312459	Elect./C. 10000μF 90WV	
ED311856	LED SLP137B	
ED311794	LED SY405T	
ED311857	LED TLR114	
ED300924	Silicon Diode GP08D	
ED312449	Silicon Diode SS-5A	
ED312450	Silicon Diode SS-5AR	
ED311852	Silicon Diode 1S2471	
ED624903	Silicon Diode 1S2473	
ED490511	Varistor VD1222	
ED313705	Zener Diode RD-20E (C)	
ED311752	Zener Diode RD-22E (C)	
ED311864	Zener Diode RD-3.3E (C)	
ED308467	Zener Diode RD-4.7E (C)	
ED311853	Zener Diode RD-6.2E (C)	
EF303348	⚠ Fuse ST-6 6.3A	(CSA)
EF308847	⚠ Fuse 1.6A 125V	(CSA)
EF311839	⚠ Fuse 1.6A 250V	(U/T)
EF309391	⚠ Fuse 800mA 125V	(CSA)
EF309388	⚠ Fuse 800mA 250V	(U/T)
EF300577	⚠ Fuse (EAK) 5AT	(CEE, UK)
EF623103	⚠ Fuse (SEMKO T) 1AT	(CEE, UK)
EF593706	⚠ Fuse (SEMKO T) 500mAT	(CEE, UK)
EF242605	⚠ Fuse (SEMKO T) 6.3AT	(U/T)
EI311855	IC LB1405	(U/T)
EI308865	IC TA7318P	
EL311833	Lamp (Cord Type) 8V 300mA (200mm×2)	
EM312444	Meter KL-90G-100	
EP311858	Relay MSJ48D2-0Z	
ES311805	⚠ Lever SW. SY02-2 (U85DMU, C)	SW901 (U/T, CSA)
ES311806	⚠ Lever SW. V85DV	SW901 (CEE, UK)
ES311690	Push SW. J-K2014	
ET302465	FET 2SK117 (SPECIAL)	
ET311792	FET 2SK150 (GR) (Y)	

Parts No.	Description	Note
ET557965	Transistor 2SA733 (Q) (R)	
ET311845	Transistor 2SA899 (B) (V)	
ET311844	Transistor 2SA949 (O) (Y) AKAI	
ET311791	Transistor 2SA968 (O) (Y)	
ET305463	Transistor 2SA970 (GR) (BL)	
ET312447	Transistor 2SB645 (O) (R)	
ET311865	Transistor 2SC1904 (B) (V)	
ET312485	Transistor 2SC2229 (O) (Y) AKAI	
ET311790	Transistor 2SC2238 (O) (Y)	
ET307195	Transistor 2SC2240 (GR) (BL)	
ET635220	Transistor 2SC945L (K) (P)	
ET300931	Transistor 2SD600K (E) (F)	
ET312446	Transistor 2SD665 (O) (R)	
EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	
EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	
EV311835	Semi-Fixed/Vol. (Solid) CR29R 2.2KB	
EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	
EV311834	Vol. V24L52PHN25KC 100KB	

2. MAIN AMP P.C BOARD (L) (PM-1201/1201S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
2-1	BA312154	Main Amp P.C Board (L) Comp. PS-200M	PM-1201
2-TR1,2	ET302465	FET 2SK227 (SPECIAL)	45-12-16
2-TR3	ET311792	FET 2SK150(GR) (Y)	45-12-22
2-TR4to7	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
2-TR8,9	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
2-TR10	ET311845	Transistor 2SA899(B)(V)	45-1-341
2-TR11	ET311865	Transistor 2SC1904(B)(V)	45-1-342
2-TR13to15	ET635220	Transistor 2SC945L(K)(P)	45-1-85
2-TR16,17	ET557965	Transistor 2SA733(Q)(R)	45-1-124
2-TR18	ET635220	Transistor 2SC945L(K)(P)	45-1-85
2-TR19	ET312485	Transistor 2SC2229(O)(Y) AKAI	45-1-349
2-TR20	ET311844	Transistor 2SA949(O)(Y) AKAI	45-1-340
2-TR21	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
2-TR22	ET311791	Transistor 2SA968(O)(Y)	45-1-338
2-TR23	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
2-TR24,25	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
2-TR26	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
2-TR27	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
2-TR28	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
2-TR29	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
2-TR30	ET311791	Transistor 2SA968(O)(Y)	45-1-338
2-D1,2	ED624903	Silicon Diode 1S2473	45-3-28
2-D3	ED311864	Zener Diode RD-3.3E(C)	45-6-72
2-D4to7	ED311852	Silicon Diode 1S2471	45-3-52
2-D8,9	ED624903	Silicon Diode 1S2473	45-3-28
2-D10,11	ED311852	Silicon Diode 1S2471	45-3-52
2-D12to15	ED311864	Zener Diode RD-3.3E(C)	45-6-72
2-D16	ED312449	Silicon Diode SS-5A	45-2-89
2-D17	ED312450	Silicon Diode SS-5AR	45-2-90
2-D18to21	ED300924	Silicon Diode GP08D	45-2-68
2-D23,24	ED311752	Zener Diode RD-22E(C)	45-6-72
2-D25to28	ED490511	Varistor VD1222	45-10-7
2-D29	ED308467	Zener Diode RD-4.7E(C)	45-6-72
2-L1	EO551711	Phase Compensation Coil 2.2μH (±30%)	23-1-188
2-VR1	EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	36-28-6
2-VR2	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
2-VR3,4	EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	36-28-6
2-P2	EJ311841	Micro Connector W-P1302	42-1-154
2-P4	EJ311841	Micro Connector W-P1302	42-1-154
2-P6	EJ207854	3P Plug. PC	42-1-96
2-P8	EJ311843	Micro Connector W-P1305	42-1-154
2-P9	EJ311841	Micro Connector W-P1302	42-1-154
2-P11	EJ699355	6P Plug, PC	42-1-95
2-P13	EJ699355	6P Plug, PC	42-1-95
2-P15	EJ311840	2P Plug, W-P3002	42-1-152
2-P17	EJ207854	3P Plug, PC	42-1-96
2-P21	EJ311842	Micro Connector W-P1303	42-1-154
2-R1	ER311751	Metal Film/R. 1/4W 100 ohms (F)	35-17-12
2-R2	ER311672	Metal Film/R. 1/4W 150K (F)	35-17-12
2-R5,6	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
2-R7,8	ER311671	Metal Film/R. 1/4W 180 ohms (F)	35-17-12
2-R9,10	ER312324	Metal Film/R. 1/4W 68 ohms (F)	35-17-12
2-R16,17	ER311668	Carbon/R. F 1/4W 1.8K(J)	35-11-25
2-R18,19	ER311663	Carbon/R. F 1/4W 68 ohms (J)	35-11-25
2-R21	ER311668	Carbon/R. F 1/4W 1.8K(J)	35-11-25
2-R22	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
2-R24,25	ER311668	Carbon/R. F 1/4W 1.8K(J)	35-11-25
2-R27	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R28	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
2-R29	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R32,33	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R35	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R37	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R38,39	ER312453	Metal Oxide Film/R. 3W 4.7K (J)	35-15-9
2-R40,41	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
2-R42,43	ER310843	Carbon/R. F 1/4W 680 ohms (J)	35-11-25
2-R47to50	ER311669	Carbon/R. F 1/4W 3.3K (J)	35-11-25
2-R51	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
2-R52	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
2-R53,54	ER675112	Carbon/R. F 1/2W 6.8 ohms (J)	35-11-13
2-R55,56	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
2-R57,58	ER439132	Metal Oxide Film/R. 2W 150 ohms (K)	35-15-8
2-R59to66	ER312414	Metal Plate/R. MPC71F1 5W 1 ohm (K)	35-16-48
2-R67,68	ER312486	Metal Oxide Film/R. 2W 4.7 ohms (K)	35-15-18
2-R69,70	ER380856	Metal Oxide Film/R. 2W 10 ohms (K)	35-15-8
2-R71,72	ER311665	Carbon/R. F 1/4W 560 ohms (J)	35-11-25
2-R75,76	ER312451	Metal Oxide Film/R. 2W 4.7K (J)	35-15-8
2-R81,82	ER308875	Carbon/R. F 1/2W 10 ohms (J)	35-11-27
2-R83,84	ER313702	Metal Oxide Film/R. 2W 3.3K (J)	35-15-8
2-2	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	

3. MAIN AMP P.C BOARD (R) (PM-1202/1202S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
3-1	BA312158	Main Amp P.C Board (R) Comp. PS-200M	PM-1202
3-TR1,2	ET302465	FET 2SK117 (SPECIAL)	45-12-16
3-TR3	ET311792	FET 2SK150 (GR) (Y)	45-12-22
3-TR4to7	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR8,9	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR10	ET311845	Transistor 2SA899(B)(V)	45-1-341
3-TR11	ET311865	Transistor 2SC1904(B)(V)	45-1-342
3-TR13to15	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR16,17	ET557965	Transistor 2SA733(Q)(R)	45-1-124
3-TR18	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR19	ET312485	Transistor 2SC2229(O)(Y) AKAI	45-1-349
3-TR20	ET311844	Transistor 2SA949(O)(Y) AKAI	45-1-340
3-TR21	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
3-TR22	ET311791	Transistor 2SA968(O)(Y)	45-1-338
3-TR23	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR24,25	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR26	ET305463	Transistor 2SA970 (GR) (BL)	45-2-303
3-TR27	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-TR28	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
3-TR29	ET311790	Transistor 2SC2238(O)(Y)	45-1-339
3-TR30	ET311791	Transistor 2SA968(O)(Y)	45-1-338
3-TR31	ET557965	Transistor 2SA733(Q)(R)	45-1-124
3-TR32to34	ET635220	Transistor 2SC945L(K)(P)	45-1-85
3-TR35	ET300931	Transistor 2SD600K(E)(F)	45-1-278
3-TR36	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
3-D1,2	ED624903	Silicon Diode 1S2473	45-3-28
3-D3	ED311864	Zener Dioe RD-3.3E (C)	45-6-72
3-D4to7	ED311852	Silicon Diode 1S2471	45-3-52
3-D8,9	ED624903	Silicon Diode 1S2473	45-3-28
3-D10,11	ED311852	Silicon Diode 1S2471	45-3-52
3-D12to15	ED311864	Zener Diode RD-3.3E (C)	45-6-72
3-D16	ED312449	Silicon Diode SS-5A	45-2-89
3-D17	ED312450	Silicon Diode SS-5AR	45-2-90
3-D18to22	ED300924	Silicon Diode GP08D	45-2-68
3-D23,24	ED311752	Zener Diode RD-22E (C)	45-6-72
3-D25to28	ED490511	Varistor VD1222	45-10-7
3-D29	ED313705	Zener Diode RD-20E (C)	45-6-72
3-D30	ED308467	Zener Diode RD-4.7E (C)	45-6-72
3-L1	EO551711	Phase Compensation Coil 2.2µH (±30%)	23-1-188
3-VR1	EV311838	Semi-Fixed/Vol. (Solid) CR29R 220 ohms (B)	36-28-6
3-VR2	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
3-VR3,4	EV311836	Semi-Fixed/Vol. (Solid) CR29R 10KB	36-28-6
3-RL1	EP311858	Relay MSJ48D2-0Z	47-1-38
3-P1	EJ311841	Micro Connector W-P1302	42-1-154
3-P3	EJ311841	Micro Connector W-P1302	42-1-154
3-P5	EJ207854	3P Plug. PC	42-1-96
3-P7	EJ311843	Micro Connector W-P1305	42-1-154
3-P10	EJ699355	6P Plug, PC	42-1-95
3-P12	EJ699355	6P Plug, PC	42-1-95
3-P14	EJ311840	2P Plug, W-P3002	42-1-152
3-P16	EJ207854	3P Plug, PC	42-1-96
3-P18,19	EJ311841	Micro Connector W-P1302	42-1-154
3-P20	EJ311842	Micro Connector W-P1303	42-1-154
3-C41	EC311689	NP/C. 330µF (M) 6.3WV	24-17-31
3-C44	*EC662128*	*Solid Aluminum/C.* (Vert.) 2.2µF (M) 25WV	24-19-2
3-R1	ER311751	Metal Film/R. 1/4W 100 ohms (F)	35-17-12
3-R2	ER311672	Metal Film/R. 1/4W 150K (F)	35-17-12
3-R5,6	ER311757	Metal Film/R. 1/4W 4.7K (F)	35-17-12
3-R7,8	ER311671	Metal Film/R. 1/4W 180 ohms (F)	35-17-12
3-R9,10	ER312324	Metal Film/R. 1/4W 68 ohms (F)	35-17-12
3-R16,17	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R18,19	ER311663	Carbon/R. F 1/4W 68 ohms (J)	35-11-25
3-R21	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R22	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
3-R24,25	ER311668	Carbon/R. F 1/4W 1.8K (J)	35-11-25
3-R27	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R28	ER311664	Carbon/R. F 1/4W 270 ohms (J)	35-11-25
3-R29	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
3-R32,33	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
3-R35	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R37	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R38,39	ER312453	Metal Oxide Film/R. 3W 4.7K (J)	35-15-9
3-R40,41	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
3-R42,43	ER310843	Carbon/R. F 1/4W 680 ohms (J)	35-11-25
3-R47to50	ER311669	Carbon/R. F 1/4W 3.3K (J)	35-11-25
3-R51	ER308849	Carbon/R. F 1/4W 220 ohms (J)	35-11-25
3-R52	ER307196	Carbon/R. F 1/4W 100 ohms (J)	35-11-25
3-R53,54	ER675112	Carbon/R. F 1/2W 6.8 ohms (J)	35-11-13
3-R55,56	ER311667	Carbon/R. F 1/4W 1K (J)	35-11-25
3-R57,58	ER439132	Metal Oxide Film/R. 2W 150 ohms (K)	35-15-8
3-R59to66	ER312414	Metal Plate/R. MPC71F1 5W 1 ohm (K)	35-16-48
3-R67,68	ER312486	Metal Oxide Film/R. 2W 4.7 ohms (K)	35-15-18
3-R69,70	ER380856	Metal Oxide Film/R. 2W 10 ohms (K)	35-15-8
3-R71,72	ER311665	Carbon/R. F 1/4W 560 ohms (J)	35-11-25
3-R75,76	ER312451	Metal Oxide Film/R. 2W 4.7K (J)	35-15-8
3-R89	ER311662	Carbon/R. F 1/4W 22 ohms (J)	35-11-25
3-R95	ER313798	Metal Oxide Film/R. 2W 1.5K (J)	35-15-8
3-R102,103	ER308875	Carbon/R. F 1/2W 10 ohms (J)	35-11-27
3-2	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	

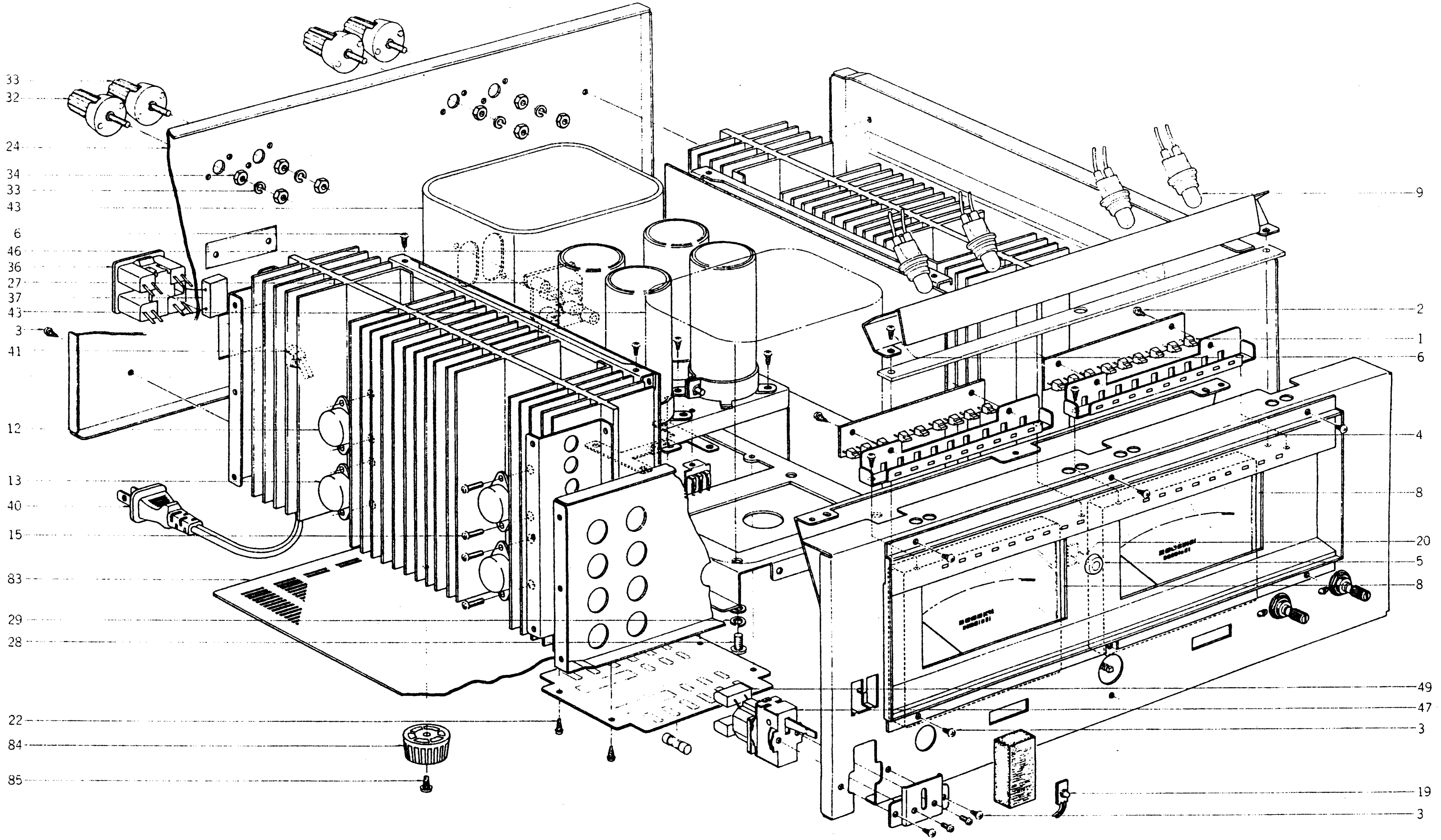
4. FILTER P.C BOARD (PM-1203/1203S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
4-1	BA311438	Filter P.C Board Comp. PS-120M	PM-1203
4-TR1	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
4-TR2,3	ET305463	Transistor 2SA970 (GR) (BL)	45-1-303
4-TR4	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
4-VR1	EV311834	Vol. V24L52PHN25KC 100KB	36-2-44
4-SW1	ES311690	Push SW. J-K2014	25-5-312
4-C2	EC311779	NP/C. 2.2µF 50WV	24-17-33
4-2	ZS608477	Screw, Pan 3x4	

5. METER P.C BOARD (PM-2001/2001S) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
5-1	BA312162	Meter P.C Board Comp. PS-200M	PM-2001
5-IC1	EI308865	IC TA7318P	45-8-306
5-IC2,3	EI311855	IC LB1405	45-8-328
5-TR1	ET311791	Transistor 2SA968(O)(Y)	45-1-338
5-TR2	ET557965	Transistor 2SA733(Q)(R)	45-1-124
5-TR3,4	ET307195	Transistor 2SC2240 (GR) (BL)	45-1-302
5-D1,2	ED300924	Silicon Diode GP08D	45-2-68
5-D3	ED311853	Zener Diode RD-6.2E(C)	45-6-72
5-D4	ED624903	Silicon Diode 1S2473	45-3-28
5-VR1	EV310077	Semi-Fixed/Vol. (Solid) CR29R 1KB	36-28-6
5-VR2	EV311835	Semi-Fixed/Vol. (Solid) CR29R 2.2KB	36-28-6
5-R1,2	ER453565	Metal Oxide Film/R. 2W 1.2K (J)	35-15-8
5-FR1	ER293635	Fuse/R. FRN158 1/4W 10 ohms (J) 700 mA	35-14-20

6. ASSEMBLY BLOCK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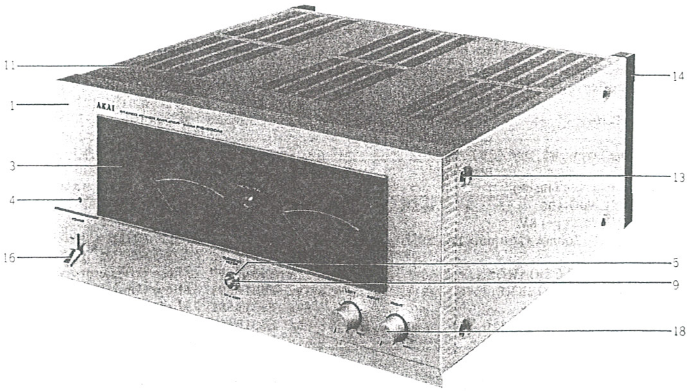
6. ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
		LED P.C BOARD (C) BLOCK	
6-1	ED311856	LED SLP137B	45-15-23
6-2	ZS447761	Tapping Screw, #2, 3x6 (BR) (Black)	
		FRONT CHASSIS BLOCK	
6-3	ZS308846	Tapping Screw, #2, 3x8 (BR) (Oval Neck)	7-1-69
6-4	ML312430	Meter Plate	PM-2006/2007
6-5	MH311627	Collar	PM-1217
6-6	ZS463353	Tapping Screw, #2, 3x8 (BR) (Black)	
6-7x	ZS355522	Screw, Pan 3x6 (Black)	
6-8	EM312444	Meter KL-90G-100	46-2-24
6-9	EL311833	Lamp (Cord Type) 8V 300mA (200mmx2)	28-2-71
		TEMP. COMPENSATION P.C BOARD BLOCK	
6-10x	ET635220	Transistor 2SC945L(K)(P) (TR1)	45-1-85
6-11x	EJ313607	Micro Connector Assy C2208 (J20, 21)	26-6-329
		HEAT SINK BLOCK	
6-12	ET312446	Transistor 2SD665 (O) (R)	45-1-345
6-13	ET312447	Transistor 2SB645 (O) (R)	45-1-346
6-14x	EJ624486	Power TR. Socket	31-1-97
6-15	ZS608501	Screw, Pan 3x12	
6-16x	EJ313603	Mini Connector Assy C1103 (J10, 11)	26-6-325
6-17x	EJ313605	Mini Connector Assy C1105 (J13)	26-6-327
6-18x	EJ313604	Mini Connector Assy C1104 (J12)	26-6-326
		LED P.C BOARD (B) BLOCK	
6-19	ED311794	LED SY405T (Power)	45-15-24
6-20	ED311857	LED TLR114 (Protection)	45-15-25
6-21x	EJ313596	Micro Connector Assy C1205 (J18)	26-6-318
6-22	ZS311745	Tapping Screw, #2, 3x8 (BR) W=8 (Black)	
6-23x	ZS608477	Screw, Pan 3x4	
6-24	SP312437	Rear Panel (U-2) (U/T)	PM-2010
6-25x	SP312438	Rear Panel (C, A-2) (CSA)	PM-2011
6-26x	SP312439	Rear Panel (E-2) (CEE)	PM-2013
6-27x	SP312440	Rear Panel (B-2) (UK)	PM-2014
6-28	ZS201778	Screw, Pan 4x8	
6-29	ZW668621	M4 Spring Washer (Black)	
6-30	EJ312482	4P Pin Jack	31-5-149
6-31x	ZS522865	Tapping Screw, #2, 3x12 (BR) (Black)	
6-32	EJ311695	Terminal T5689-A	32-1-99
6-33	EJ311696	Terminal T5689-B	32-1-102
6-34	ZW273914	Spring Washer, M4	
6-35	ZW413188	Nut, M4 #1	
6-36	EZ225145	⚠ 2-Throw AC Outlet (U/T, CSA)	31-1-166
6-37	EC283375	⚠ MP/C. 0.047μF (M) 250WV (U/T)	24-9-118
6-38x	EC286198	⚠ Ceramic/C. AL-10 0.01μF (Z) 125WV (CSA)	24-5-69
6-39x	EC308528	⚠ Oil Paper/C. ECN-C4A 0.047μF (M) 450WV (CEE, UK)	24-8-6
6-40	EW311816	⚠ Power Cord 125V 13A (U/T, CSA)	26-3-75
6-41	EZ631945	Strain Relief SR-4N-4 (U/T, CSA)	2-7-49
6-42x	EJ296853	⚠ 3P In-let CM-3 (CEE, UK)	31-1-199
6-43	BT312425	⚠ Power Trans. PS-200MT-70 (U/T)	38-4-694
6-44x	BT312422	⚠ Power Trans. PS-200MT-30 (CSA)	38-4-692
6-45x	BT312424	⚠ Power Trans. PS-200MT-40 (CEE, UK)	38-4-693
6-46	EC312459	Elect./C. 10000μF 90WV	24-10-131
6-47	ES311805	⚠ Lever SW. SY02-2 (U85DMU, C) (U/T, CSA)	25-12-48
6-48x	ES311806	⚠ Lever SW. V85DV(CEE,UK)	25-12-50
6-49	EC283375	⚠ MP/C. 0.047μF (M) 250WV (U/T)	24-9-118
6-50x	EC286198	⚠ Ceramic/C. AL-10 0.01μF (Z) 125WV (CSA)	24-5-69
6-51x	EC308528	⚠ Oil Paper/C. ECN-C4A 0.047μF (M) 450WV (CEE, UK)	24-8-6
6-52x	EJ314568	Fuse Holder (UK)	[illegible]
6-53x	EF242605	⚠ Fuse (SEMKO T) 6.3AT(UK)	39-1-53
6-54x	EC286198	Ceramic/C. AL-10 0.01μF (Z) 125WV (CSA)	24-5-69
6-55x	EC308528	Oil Paper/C. ECN-C4A 0.047μF (M) 450WV (CEE, UK)	24-8-6
6-56x	EJ313598	Micro Connector Assy C1207(J1)	26-6-320
6-57x	EJ313597	Micro Connector Assy C1206(J2)	26-6-319
6-58x	EJ313591	Micro Connector Assy C1201(J3)	26-6-314
6-59x	EJ313592	Micro Connector Assy C1202(J4)	26-6-315
6-60x	EJ313602	Mini Connector Assy C1102(J5,6)	26-6-324
6-61x	EJ313600	Micro Connector Assy C1209(J7,8)	26-6-322
6-62x	EJ313594	Micro Connector Assy C1203(J9)	26-6-316
6-63x	EJ313601	Mini Connector Assy C1101 (J14,15)	26-6-323
6-64x	EJ313606	Mini Connector Assy C1106 (J16,17)	26-6-328
6-65x	EJ313595	Micro Connector Assy C1204 (J19)	26-6-317
6-66x	EW313609	Wire (A) Assy (320mm)	26-1-9
6-67x	EW313610	Wire (B) Assy (180mm)	26-1-10
6-68x	EW313611	Wire (C) Assy (230mm)	26-1-11
6-69x	EW313613	Wire (E) Assy (230mm)	26-1-13
6-70x	EF309388	⚠ Fuse 800mA 250V. (U/T)	39-1-64
6-71x	EF311839	⚠ Fuse 1.6A 250V (U/T)	39-1-64
6-72x	EF242605	⚠ Fuse (SEMKO T) 6.3AT(U/T)	39-1-53
6-73x	EF303348	⚠ Fuse ST-6 6.3A (CSA)	39-1-63
6-74x	EF309391	⚠ Fuse 800mA 125V (CSA)	39-1-65
6-75x	EF308847	⚠ Fuse 1.6A 125V (CSA)	39-1-65
6-76x	EF303348	⚠ Fuse ST-6 6.3A (CSA)	39-1-63
6-77x	EF309391	⚠ Fuse 800mA 125V (CSA)	39-1-65
6-78x	EF308847	⚠ Fuse 1.6A 125V (CSA)	39-1-65
6-79x	EF300577	⚠ Fuse (EAK) 5AT (CEE, UK)	39-1-59
6-80x	EF593706	⚠ Fuse (SEMKO T) 500mAT (CEE, UK)	39-1-53
6-81x	EF623103	⚠ Fuse (SEMKO T) 1AT (CEE, UK)	39-1-53
6-82x	ZS311746	Tapping Screw, #2, 3x8 (Countersunk) (Black)	
6-83	SP311644	Bottom Plate	PM-1234
6-84	SA312465	Circular Foot (A) Part CA	CA-6014
6-85	ZS311747	Tapping Screw, #2, 4x8 (Pan) (Black)	
6-86x	EC283375	MP/C. 0.047μF(M) 250WV(U/T)	24-9-118

7. FINAL ASSEMBLY BLOCK



7. FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
7-1	BD312146	Front Panel Block Comp. PS-200M	
7-2x	BD312147	Front Panel Block Comp. PS-200M-BL	
7-3	SZ311647	Front Plate	PM-1237
7-4	SE311728	Power Lens	PC-2021
7-5	SE311652	Button Escutcheon	PM-1240
7-6x	ZG311653	Spring	PM-1241
7-7x	SB311650	Button	PM-1239
7-8x	SB311651	Button (BL)	PM-1239
7-9	SH311648	Cap	PM-1238
7-10x	SH311649	Cap (BL)	PM-1238
7-11	BC311654	Case	PM-1242
7-12x	BC312479	Case (BL)	PM-1242
7-13	ZS537006	Screw, Bind 4×8 (Black)	
7-14	SA311655	Foot	PM-1243
7-15x	ZS608635	Screw, Pan 4x10	
7-16	ML311731	Lever (A)	PC-2024
7-17x	ML311732	Lever (A-BL)	PC-2024
7-18	SK311735	Knob	PC-2026
7-19x	SK311736	Knob (BL)	PC-2026

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BT311809	7-4x
BT311810	7-5x
BT311811	7-3
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EC286198	7-14x
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EC311780	2-C32
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EC311782	2-C35
EC311786	2-C19
EC311787	2-C18
EC311788	2-C17
EC312462	2-C16
EC427228	7-40x
EC427228	7-41x
EC427228	7-42x
EC662128	4-C2
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ED311794	6-D1
ED311853	4-D1
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SK311735	8-16
SK311736	8-17x
SK311737	8-18
SK311738	8-19x
SK311739	8-20
SK311740	8-21x
SP311718	7-22
SP311719	7-23x
SP311720	7-24x
SP311721	7-25x
SP311722	7-52
TA311726	8-3
TA311727	8-4x
TA646773	7-19
ZG312478	8-8x
ZS201778	7-9x
ZS308846	7-1
ZS311745	7-17x
ZS311746	7-51x
ZS311747	7-54
ZS411232	8-13x
ZS421740	2-2
ZS421740	3-2
ZS463353	7-34x
ZS522865	7-30x
ZS537006	7-6
ZS537006	8-11
ZS608185	7-31
ZS608477	7-2
ZW270123	7-21
ZW273914	7-8
ZW312470	7-26x
ZW312471	7-27x
ZW312472	7-28x
ZW312473	7-29x
ZW322110	7-20
ZW413188	7-7
ZW413188	7-10x

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Parts No.	Ref. No. & Symbol No.
BA311432	2-1
BA311436	3-1
BA311438	4-1
BA311440	5-1
BC311654	7-11
BC312479	7-12x
BD311414	7-1
BD311415	7-2x
BT311859	6-26
BT311860	6-28x
BT311862	6-27x
EC283375	6-37
EC283375	6-54
EC283375	6-88x
EC286198	6-39x
EC286198	6-49x
EC286198	6-56x
EC308528	6-38x
EC308528	6-48x
EC308528	6-55x
EC311688	6-32
EC311689	3-C41
EC311779	4-C2
EC662128	3-C44
ED300924	2-D18to21
ED300924	3-D18to22
ED300924	5-D1,2
ED311752	2-D23,24
ED311752	3-D23,24
ED311794	6-10
ED311849	2-D16
ED311849	3-D16
ED311851	2-D17
ED311851	3-D17
ED311852	2-D4to7
ED311852	2-D10,11
ED311852	3-D4to7
ED311852	3-D10,11
ED311853	5-D3
ED311854	3-D29
ED311856	6-1
ED311857	6-11
ED311864	2-D12to15
ED311864	3-D12to15
ED490511	2-D25,26
ED490511	3-D25,26
ED624903	2-D1,2
ED624903	2-D8,9
ED624903	3-D1,2
ED624903	3-D8,9
ED624903	5-D4
EF242605	6-58x
EF300577	6-65x
EF303348	6-62x
EF305703	6-63x
EF306124	6-59x
EF308847	6-64x
EF311839	6-60x
EF623103	6-67x
EF668474	6-66x
EF691007	6-61x
EI308865	5-IC1
EI311855	5-IC2
EJ207854	2-P6
EJ207854	2-P17
EJ207854	3-P5
EJ207854	3-P16
EJ296853	6-43x
EJ311695	6-46
EJ311696	6-47
EJ311840	2-P15
EJ311840	3-P14
EJ311841	2-P2
EJ311841	2-P4
EJ311841	2-P9
EJ311841	3-P1
EJ311841	3-P3
EJ311841	3-P18,19
EJ311842	2-P21
EJ311842	3-P20
EJ311843	2-P8
EJ311843	3-P7
EJ312482	6-40
EJ313591	6-70x
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EJ313594	6-74x
EJ313595	6-77x
EJ313596	6-12x
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EJ313598	6-68x
EJ313599	6-14x
EJ313600	6-73x
EJ313601	6-75x
EJ313602	6-72x
EJ313603	6-19x
EJ313604	6-21x
EJ313605	6-20x
EJ313606	6-76x
EJ314568	6-57x
EJ624486	6-17x
EJ699355	2-P11
EJ699355	2-P13
EJ699355	3-P10
EJ699355	3-P12
EL311833	6-9
EM311863	6-7
EO551711	2-L1
EO551711	3-L1
EP311858	3-RL1
ER293635	5-FR1
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ER307196	2-R32,33
ER307196	3-R29
ER307196	3-R32,33
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ER310843	3-R42,43
ER311662	2-R51,52
ER311662	3-R51,52
ER311662	3-R89
ER311663	2-R18,19
ER311663	3-R18,19
ER311664	2-R22
ER311664	2-R28
ER311664	3-R22
ER311664	3-R28
ER311665	2-R71,72
ER311665	3-R71,72
ER311667	2-R27
ER311667	2-R35
ER311667	2-R37
ER311667	2-R55,56
ER311667	3-R27
ER311667	3-R35
ER311667	3-R37
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ER311668	2-R16,17
ER311668	2-R21
ER311668	2-R23
ER311668	2-R25
ER311668	3-R16,17
ER311668	3-R21
ER311668	3-R23
ER311668	3-R25
ER311669	2-R47to50
ER311669	3-R47to50
ER311671	2-R7,8
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ER311672	3-R2
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ER311673	3-R75,76
ER311683	2-R38,39
ER311683	3-R38,39
ER311751	2-R1
ER311751	3-R1
ER311757	2-R5,6
ER311757	3-R5,6
ER312324	2-R9,10
ER312324	3-R9,10
ER312483	5-R1,2
ER312486	2-R67,68
ER312486	3-R67,68
ER312487	2-R83,84
ER380856	2-R69,70
ER380856	3-R69,70
ER439132	2-R57,58
ER439132	3-R57,58
ER622978	2-R59to62
ER622978	3-R59to62
ES311690	4-SW1
ES311805	6-52
ES311806	6-53x
ET300931	3-TR35
ET302465	2-TR1,2
ET302465	3-TR1,2
ET305463	2-TR8,9
ET305463	2-TR23
ET305463	2-TR26
ET305463	2-TR28
ET305463	3-TR8,9
ET305463	3-TR23
ET305463	3-TR26
ET305463	3-TR28
ET305463	4-TR2,3
ET307195	2-TR4to7
ET307195	2-TR24,25
ET307195	2-TR27
ET307195	3-TR4to7
ET307195	3-TR24,25
ET307195	3-TR27
ET307195	3-TR36
ET307195	4-TR1
ET307195	4-TR4
ET307195	5-TR3,4
ET311790	2-TR21
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ET311790	3-TR29
ET311791	2-TR22
ET311791	2-TR30
ET311791	3-TR22
ET311791	3-TR30
ET311791	5-TR1
ET311792	2-TR3
ET311792	3-TR3
ET311844	2-TR20
ET311844	3-TR20
ET311845	2-TR10
ET311845	3-TR10
ET311846	6-16
ET311847	6-15
ET311865	2-TR11
ET311865	3-TR11
ET312485	2-TR19
ET312485	3-TR19
ET557965	2-TR16,17
ET557965	3-TR16,17
ET557965	3-TR31
ET557965	5-TR2
ET635220	2-TR13to15
ET635220	2-TR18
ET635220	3-TR13to15
ET635220	3-TR18
ET635220	3-TR32to34
ET635220	6-13x
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EV310077	3-VR2
EV310077	5-VR1
EV311834	4-VR1
EV311835	5-VR2
EV311836	2-VR3,4
EV311836	3-VR3,4
EV311838	2-VR1
EV311838	3-VR1
EW311816	6-44
EW313609	6-78x
EW313610	6-79x
EW313611	6-80x
EW313612	6-81x
EZ225145	6-42
EZ631945	6-45
MH311627	6-5
ML311629	6-4
ML311731	7-16
ML311732	7-17x
SA311655	7-14
SA312465	6-86
SB311650	7-7x
SB311651	7-8x
SE311652	7-5
SE311728	7-4
SH311648	7-9
SH311649	7-10x
SK311735	7-18
SK311736	7-19x
SP311640	6-33
SP311641	6-34x
SP311642	6-35x
SP311643	6-36x
SP311644	6-83
SZ311647	7-3
ZG311653	7-6x
ZS201778	6-25x
ZS308846	6-3
ZS311745	6-22
ZS311746	6-82x
ZS311747	6-87
ZS312349	6-51x
ZS344338	6-18
ZS355522	6-8x
ZS411232	7-15x
ZS447761	6-2
ZS463353	2-2
ZS463353	3-2
ZS463353	6-6
ZS522865	6-41x
ZS537006	6-85x
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ZS608477	4-2
ZS608477	6-24x
ZS608477	6-50x
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ZW273914	6-30
ZW413188	6-31
ZW668621	6-23x
ZW668621	6-84x

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Parts No.	Ref. No. & Symbol No.
BA311438	4-1
BA312154	2-1
BA312158	3-1
BA312162	5-1
BC311654	7-11
BC312479	7-12x
BD312146	7-1
BD312147	7-2x
BT312422	6-44x
BT312424	6-45x
BT312425	6-43
EC283375	6-37
EC283375	6-49
EC283375	6-86x
EC286198	6-38x
EC286198	6-50x
EC286198	6-54x
EC308528	6-39x
EC308528	6-51x
EC308528	6-55x
EC311689	3-C41
EC311779	4-C2
EC312459	6-46
EC662128	3-C44
ED300924	2-D18to21
ED300924	3-D18to22
ED300924	5-D1,2
ED308467	2-D29
ED308467	3-D30
ED311752	2-D23,24
ED311752	3-D23,24
ED311794	6-19
ED311852	2-D4to7
ED311852	2-D10,11
ED311852	3-D4to7
ED311852	3-D10,11
ED311853	5-D3
ED311856	6-1
ED311857	6-20
ED311864	2-D3
ED311864	2-D12to15
ED311864	3-D3
ED311864	3-D12to15
ED312449	2-D16
ED312449	3-D16
ED312450	2-D17
ED312450	3-D17
ED313705	3-D29
ED490511	2-D25to28
ED490511	3-D25to28
ED624903	2-D1,2
ED624903	2-D8,9
ED624903	3-D1,2
ED624903	3-D8,9
ED624903	5-D4
EF242605	6-53x
EF242605	6-72x
EF300577	6-79x
EF303348	6-73x
EF303348	6-76x
EF308847	6-75x
EF308847	6-78x
EF309388	6-70x
EF309391	6-74x
EF309391	6-77x
EF311839	6-71x
EF593706	6-80x
EF623103	6-81x
EI308865	5-IC1
EI311855	5-IC2,3
EJ207854	2-P6
EJ207854	2-P17
EJ207854	3-P5
EJ207854	3-P16
EJ296853	6-42x
EJ311695	6-32
EJ311696	6-33
EJ311840	2-P15
EJ311840	3-P14
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EJ311841	2-P4
EJ311841	2-P9
EJ311841	3-P1
EJ311841	3-P3
EJ311841	3-P18,19
EJ311842	2-P21
EJ311842	3-P20
EJ311843	2-P8
EJ311843	3-P7
EJ312482	6-30
EJ313591	6-58x
EJ313592	6-59x
EJ313594	6-62x
EJ313595	6-65x
EJ313596	6-21x
EJ313597	6-57x
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EJ313605	6-17x
EJ313606	6-64x
EJ313607	6-11x
EJ314568	6-52x
EJ624486	6-14x
EJ699355	2-P11
EJ699355	2-P13
EJ699355	3-P10
EJ699355	3-P12
EL311833	6-9
EM312444	6-8
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EO551711	3-L1
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ER307196	2-R29
ER307196	2-R32,33
ER307196	2-R52
ER307196	3-R29
ER307196	3-R32,33
ER307196	3-R52
ER308849	2-R40,41
ER308849	2-R51
ER308849	3-R40,41
ER308849	3-R51
ER308875	2-R81,82
ER308875	3-R102,103
ER310843	2-R42,43
ER310843	3-R42,43
ER311662	3-R89
ER311663	2-R18,19
ER311663	3-R18,19
ER311664	2-R22
ER311664	2-R28
ER311664	3-R22
ER311664	3-R28
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ER311667	2-R35
ER311667	2-R37
ER311667	2-R55,56
ER311667	3-R27
ER311667	3-R35
ER311667	3-R37
ER311667	3-R55,56
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ER311668	2-R21
ER311668	2-R24,25
ER311668	3-R16,17
ER311668	3-R21
ER311668	3-R24,25
ER311669	2-R47to50
ER311669	3-R47to50
ER311671	2-R7,8
ER311671	3-R7,8
ER311672	2-R2
ER311672	3-R2
ER311751	2-R1
ER311751	3-R1
ER311757	2-R5,6
ER311757	3-R5,6
ER312324	2-R9,10
ER312324	3-R9,10
ER312414	2-R59to66
ER312414	3-R59to66
ER312451	2-R75,76
ER312451	3-R75,76
ER312453	2-R38,39
ER312453	3-R38,39
ER312486	2-R67,68
ER312486	3-R67,68
ER313702	2-R83,84
ER313798	3-R95
ER380856	2-R69,70
ER380856	3-R69,70
ER439132	2-R57,58
ER439132	3-R57,58
ER453565	5-R1,2
ER675112	2-R53,54
ER675112	3-R53,54
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ES311806	6-48x
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ET305463	2-TR8,9
ET305463	2-TR23
ET305463	2-TR26
ET305463	2-TR28
ET305463	3-TR8,9
ET305463	3-TR23
ET305463	3-TR26
ET305463	3-TR28
ET305463	4-TR2,3
ET307195	2-TR4to7
ET307195	2-TR24,25
ET307195	2-TR27
ET307195	3-TR4to7
ET307195	3-TR24,25
ET307195	3-TR27
ET307195	3-TR36
ET307195	4-TR1
ET307195	4-TR4
ET307195	5-TR3,4
ET311790	2-TR21
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ET311790	3-TR21
ET311790	3-TR29
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ET311791	3-TR22
ET311791	3-TR30
ET311791	5-TR1
ET311792	2-TR3
ET311792	3-TR3
ET311844	2-TR20
ET311844	3-TR20
ET311845	2-TR10
ET311845	3-TR10
ET311865	2-TR11
ET311865	3-TR11
ET312446	6-12
ET312447	6-13
ET312485	2-TR19
ET312485	3-TR19
ET557965	2-TR16,17
ET557965	3-TR16,17
ET557965	3-TR31
ET557965	5-TR2
ET635220	2-TR13to15
ET635220	2-TR18
ET635220	3-TR13to15
ET635220	3-TR18
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ET635220	6-10x
EV310077	2-VR2
EV310077	3-VR2
EV310077	5-VR1
EV311834	4-VR1
EV311835	5-VR2
EV311836	2-VR3,4
EV311836	3-VR3,4
EV311838	2-VR1
EV311838	3-VR1
EW311816	6-40
EW313609	6-66x
EW313610	6-67x
EW313611	6-68x
EW313613	6-69x
EZ225145	6-36
EZ631945	6-41
MH311627	6-5
ML311731	7-16
ML311732	7-17x
ML312430	6-4
SA311655	7-14
SA312465	6-84
SB311650	7-7x
SB311651	7-8x
SE311652	7-5
SE311728	7-4
SH311648	7-9
SH311649	7-10x
SK311735	7-18
SK311736	7-19x
SP311644	6-83
SP312437	6-24
SP312438	6-25x
SP312439	6-26x
SP312440	6-27x
SZ311647	7-3
ZG311653	7-6x
ZS201778	6-28
ZS308846	6-3
ZS311745	6-22
ZS311746	6-82x
ZS311747	6-85
ZS355522	6-7x
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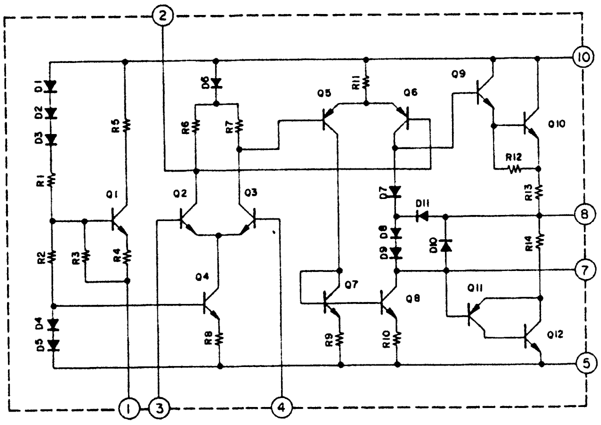
ZS463353	2-2
ZS463353	3-2
ZS463353	6-6
ZS522865	6-31x
ZS537006	7-13
ZS608477	4-2
ZS608477	6-23x
ZS608501	6-15
ZS608635	7-15x
ZW273914	6-34
ZW413188	6-35
ZW668621	6-29

SECTION 3

SCHEMATIC DIAGRAM

1. PS-200C NO. 4-1 1580852A SCHEMATIC DIAGRAM
2. PS-200C NO. 4-2 1580853A SCHEMATIC DIAGRAM
3. PS-120M NO. 4-3 1580854A SCHEMATIC DIAGRAM
4. PS-200M NO. 4-4 1580855A SCHEMATIC DIAGRAM

TA7220P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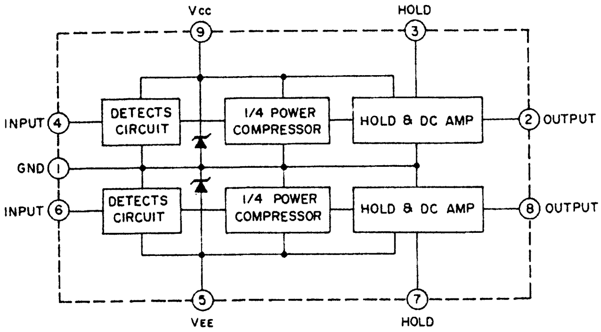
D2
D3
R1
R5
Q1
R2
R3
R4
D4
D5
D6
R6
R7
Q2
Q3
Q4
R8
Q5
R11
Q6
Q7
R9
Q8
R10
D7
D11
D8
D9
D10
Q9
Q10
R12
R13
R14
Q11
Q12
8
7
5
1
3
4

TA7318P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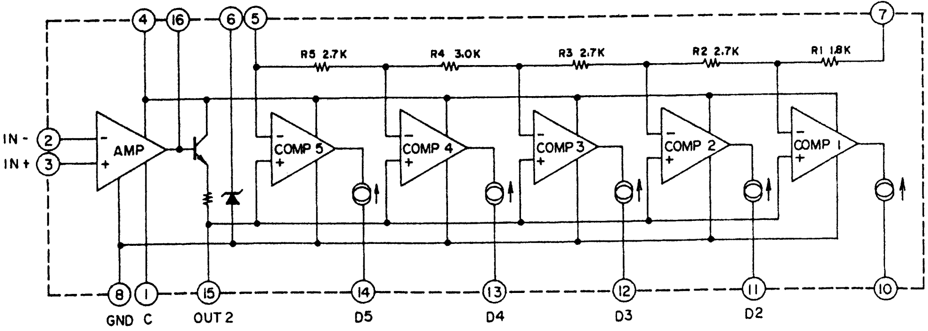
9
HOLD
3
INPUT 4
DETECTS CIRCUIT
1/4 POWER COMPRESSOR
HOLD & DC AMP
2 OUTPUT
GND 1
INPUT 6
DETECTS CIRCUIT
1/4 POWER COMPRESSOR
HOLD & DC AMP
8 OUTPUT
5
VEE
7
HOLD

LB1405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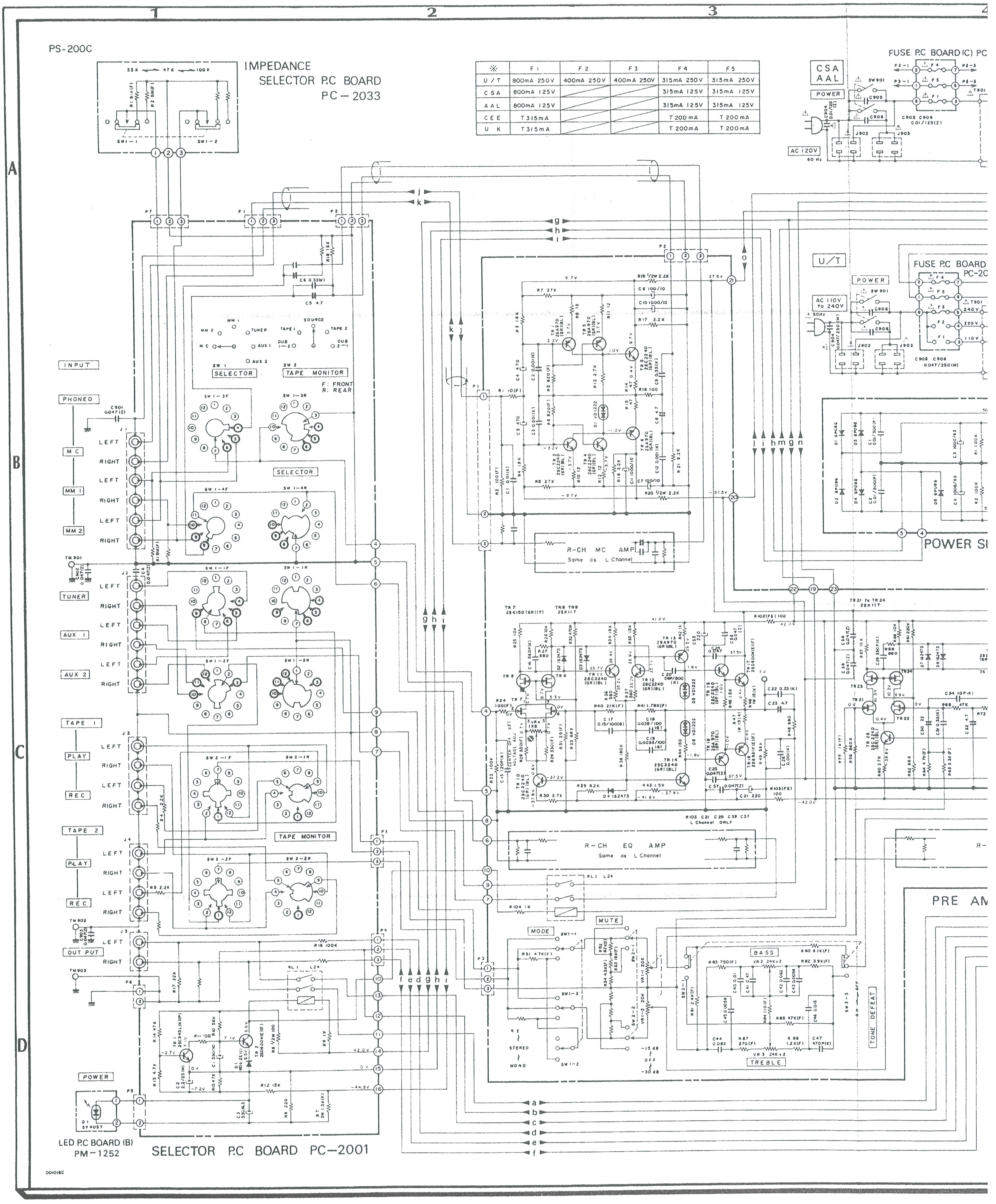
OUT1
Vref
Ro2
4
16
6
5
7
R5 2.7K
R4 3.0K
R3 2.7K
R2 2.7K
R1 1.8K
IN- 2
IN+ 3
AMP
COMP 5
COMP 4
COMP 3
COMP 2
COMP 1
8
1
15
14
13
12
11
10
GND
C
OUT 2
D5
D4
D3
D2


PS-200C
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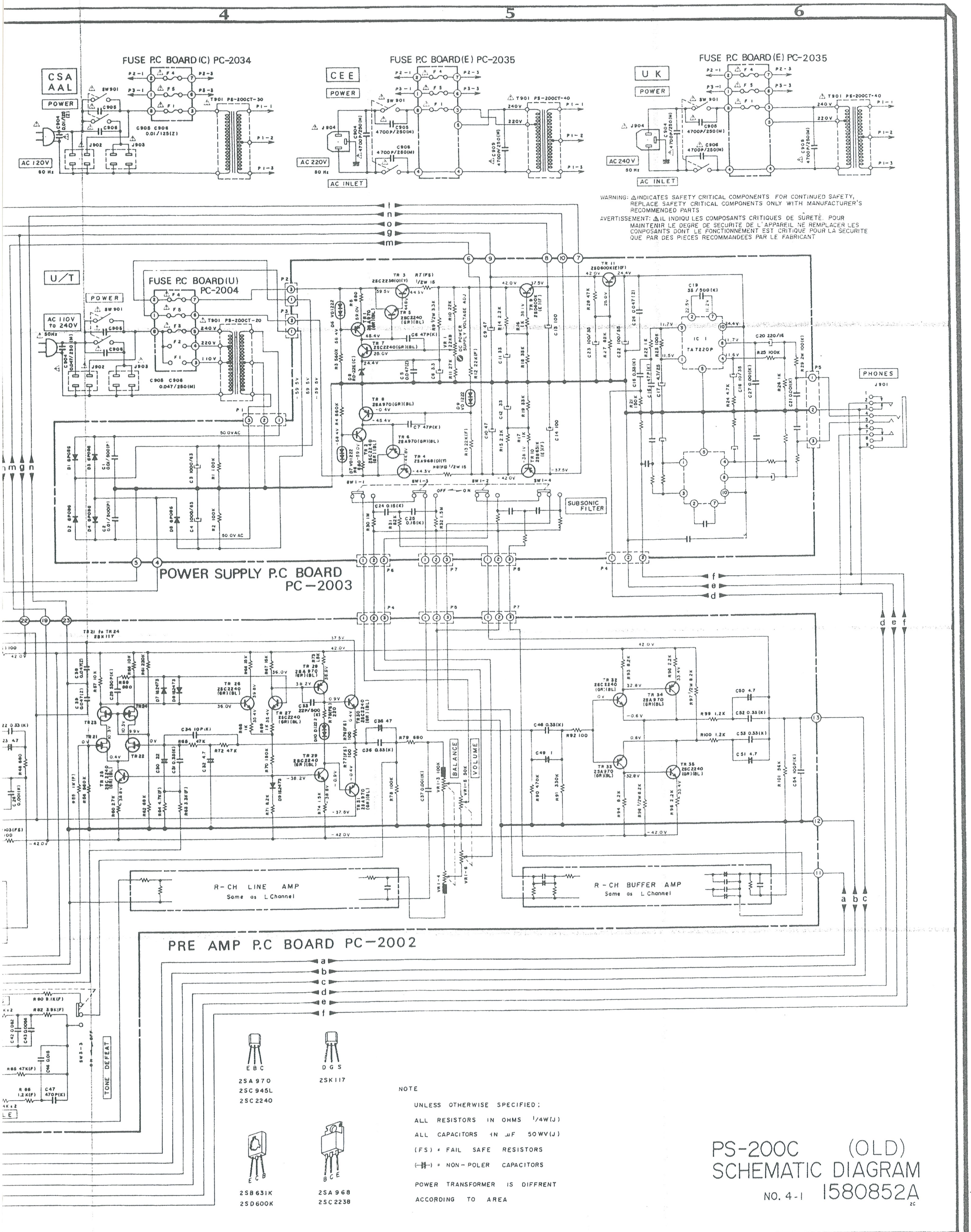
2
3
IMPEDANCE SELECTOR P.C BOARD PC-2033
33K 47K 100K
SW1-1
SW1-2
FUSE P.C BOARD (C) PC
CSA AAL
POWER
SW901
AC 120V 60Hz
J902
J903
C905 C906 0.01/125(Z)
U/T
FUSE P.C BOARD PC-20
AC 110V to 240V 50Hz
240V
220V
110V
C905 C906 0.047/250(M)
INPUT
PHONO
MC
MM 1
MM 2
TUNER
AUX 1
AUX 2
TAPE 1
PLAY
REC
TAPE 2
OUT PUT
LEFT
RIGHT
SW1 SELECTOR
SW2 TAPE MONITOR
F: FRONT R: REAR
SELECTOR
TAPE MONITOR
MM 1 TUNER TAPE 1 SOURCE TAPE 2
MM 2
MC AUX 1 DUB 1→2 DUB 2→1
AUX 2
R-CH MC AMP Same as L Channel
R-CH EQ AMP Same as L Channel
PRE AM
POWER S
RL1 L24
MODE
MUTE
BASS
TREBLE
TONE DEFEAT
STEREO
MONO
OFF
-15dB
-30dB
POWER
LED P.C BOARD (B) PM-1252
SELECTOR P.C BOARD PC-2001
a
b
c
d
e
f
g
h
i
j
k
A
B
C
D
R103 C21 C26 C39 C57 L Channel ONLY
TR21 to TR24 2SK117
TR7 2SK150 (GR)(Y)
TR8 TR9 2SK117
001016C

※	F1	F2	F3	F4	F5
U/T	800mA 250V	400mA 250V	400mA 250V	315mA 250V	315mA 250V
CSA	800mA 125V			315mA 125V	315mA 125V
AAL	800mA 125V			315mA 125V	315mA 125V
CEE	T315mA			T200mA	T200mA
UK	T315mA			T200mA	T200mA


4
5
6
FUSE P.C BOARD(C) PC-2034
CSA AAL
POWER
AC 120V
60 Hz
FUSE P.C BOARD(E) PC-2035
CEE
POWER
AC 220V
50 Hz
AC INLET
FUSE P.C BOARD(E) PC-2035
U K
POWER
AC 240V
50 Hz
AC INLET
T901 PS-200CT-30
T901 PS-200CT-40
U/T
FUSE P.C BOARD(U) PC-2004
POWER
AC 110V TO 240V
50Hz
T901 PS-200CT-20
POWER SUPPLY P.C BOARD PC-2003
SUBSONIC FILTER
OFF — ON
IC 1 TA7220P
PHONES
J901
PRE AMP P.C BOARD PC-2002
R-CH LINE AMP Same as L Channel
R-CH BUFFER AMP Same as L Channel
BALANCE
VOLUME
TONE DEFEAT
TR21 to TR24 2SK117
E B C
2SA970
2SC945L
2SC2240
D G S
2SK117
E C B
2SB631K
2SD600K
B C E
2SA968
2SC2238

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

NOTE

UNLESS OTHERWISE SPECIFIED;

ALL RESISTORS IN OHMS 1/4W(J)

ALL CAPACITORS IN μF 50WV(J)

(FS) = FAIL SAFE RESISTORS

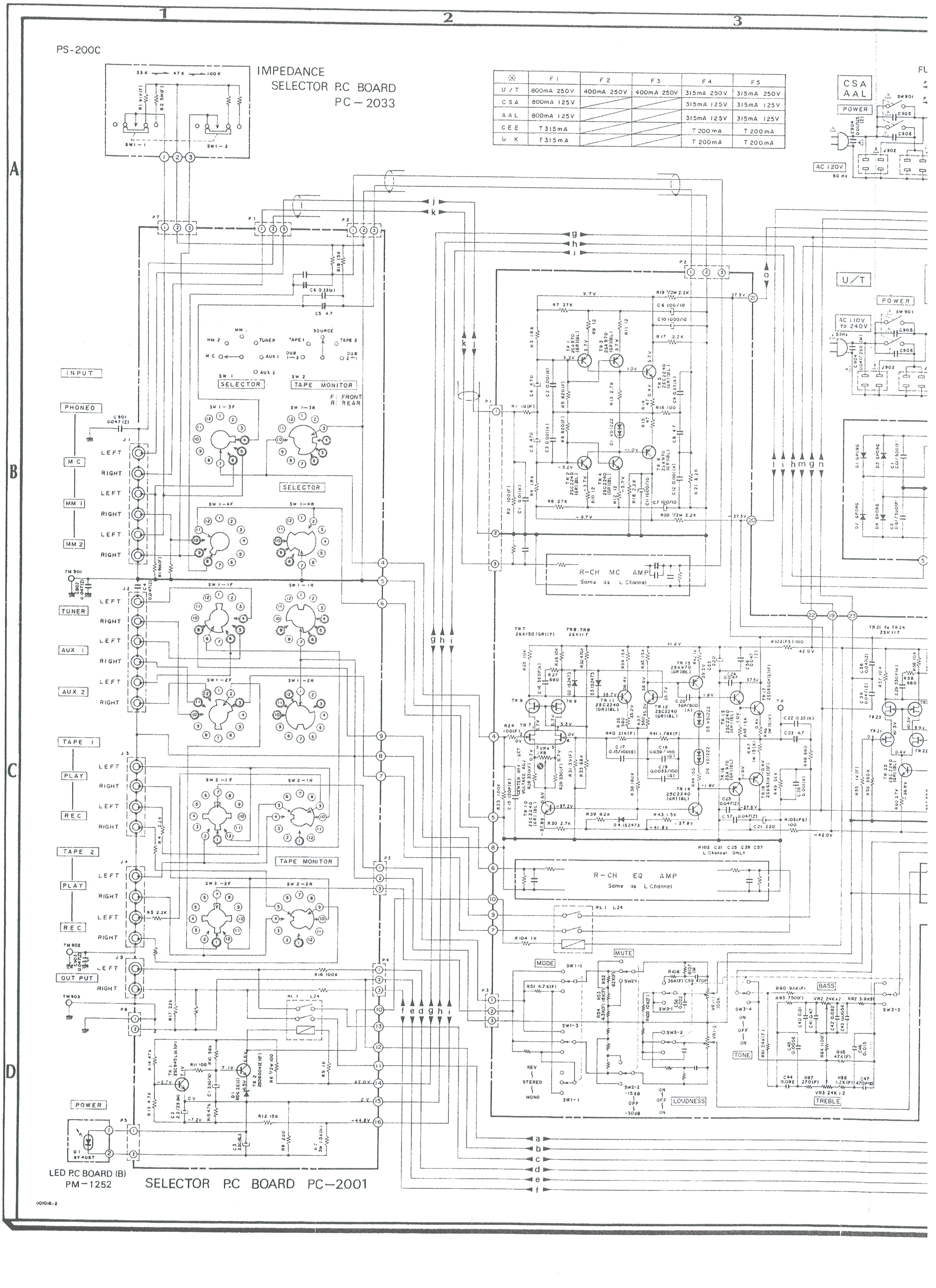
(—╫—) = NON-POLER CAPACITORS

POWER TRANSFORMER IS DIFFRENT ACCORDING TO AREA

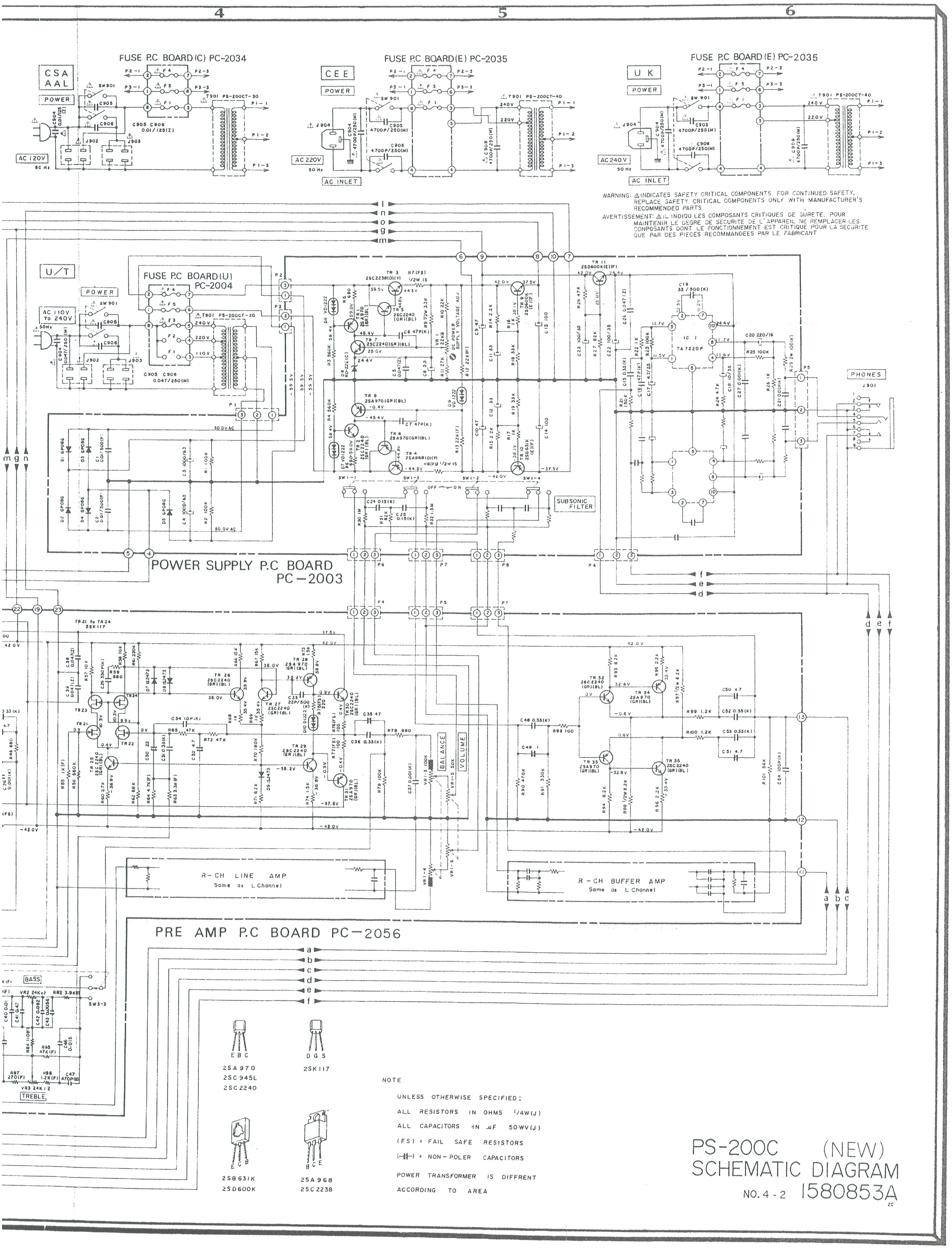
PS-200C (OLD)
SCHEMATIC DIAGRAM

NO. 4-1 1580852A

2C


1
2
3
A
B
C
D
PS-200C
IMPEDANCE SELECTOR P.C BOARD PC-2033
33K 47K 100K
SW1-1
SW1-2
INPUT
PHONEO
MC
MM 1
MM 2
LEFT
RIGHT
TM 901
TUNER
AUX 1
AUX 2
TAPE 1
PLAY
REC
TAPE 2
OUT PUT
TM 902
TM 903
SW 1 SELECTOR
SW 2 TAPE MONITOR
F: FRONT
R: REAR
MM 2
MM 1
MC
TUNER
AUX 1
AUX 2
TAPE 1
DUB 1→2
SOURCE
TAPE 2
DUB 2→1
SELECTOR
TAPE MONITOR
R-CH MC AMP
Same as L Channel
R-CH EQ AMP
Same as L Channel
RL1 L24
MODE
MUTE
REV
STEREO
MONO
SW1-1
LOUDNESS
BASS
TREBLE
TONE
ON
OFF
POWER
LED P.C BOARD (B) PM-1252
SELECTOR P.C BOARD PC-2001
CSA
AAL
POWER
AC 120V
60 Hz
U/T
POWER
AC 110V TO 240V
50Hz
R103 C21 C25 C39 C57 L Channel ONLY
TR21 to TR24 2SK117
TR7 2SA1150 (GR)(Y)
TR8, TR9 2SK117
a
b
c
d
e
f
g
h
i
j
k
o
001016-2

※	F1	F2	F3	F4	F5
U/T	800mA 250V	400mA 250V	400mA 250V	315mA 250V	315mA 250V
CSA	800mA 125V			315mA 125V	315mA 125V
AAL	800mA 125V			315mA 125V	315mA 125V
CEE	T315mA			T200mA	T200mA
UK	T315mA			T200mA	T200mA


4
5
6
FUSE P.C BOARD(C) PC-2034
CSA AAL
POWER
AC 120V
60 Hz
FUSE P.C BOARD(E) PC-2035
CEE
POWER
AC 220V
50 Hz
AC INLET
FUSE P.C BOARD(E) PC-2035
U K
POWER
AC 240V
50 Hz
AC INLET
U/T
FUSE P.C BOARD(U) PC-2004
POWER
AC 110V TO 240V
50Hz
POWER SUPPLY P.C BOARD PC-2003
SUBSONIC FILTER
PHONES
J901
R-CH LINE AMP
Same as L.Channel
R-CH BUFFER AMP
Same as L.Channel
BALANCE
VOLUME
PRE AMP P.C BOARD PC-2056
BASS
TREBLE
SW3-3
E B C
2SA970
2SC945L
2SC2240
D G S
2SK117
2SB631K
2SD600K
2SA968
2SC2238

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

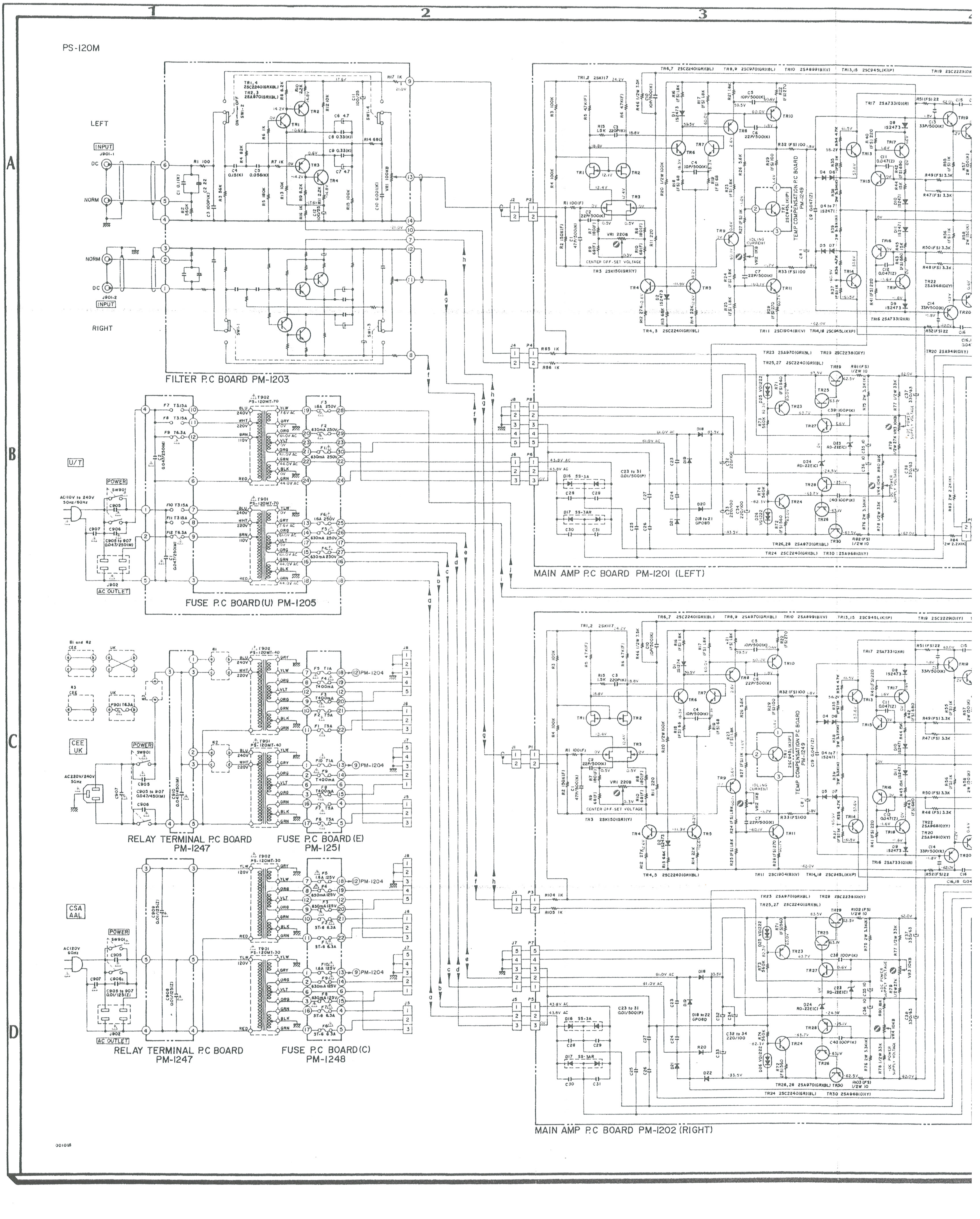
NOTE

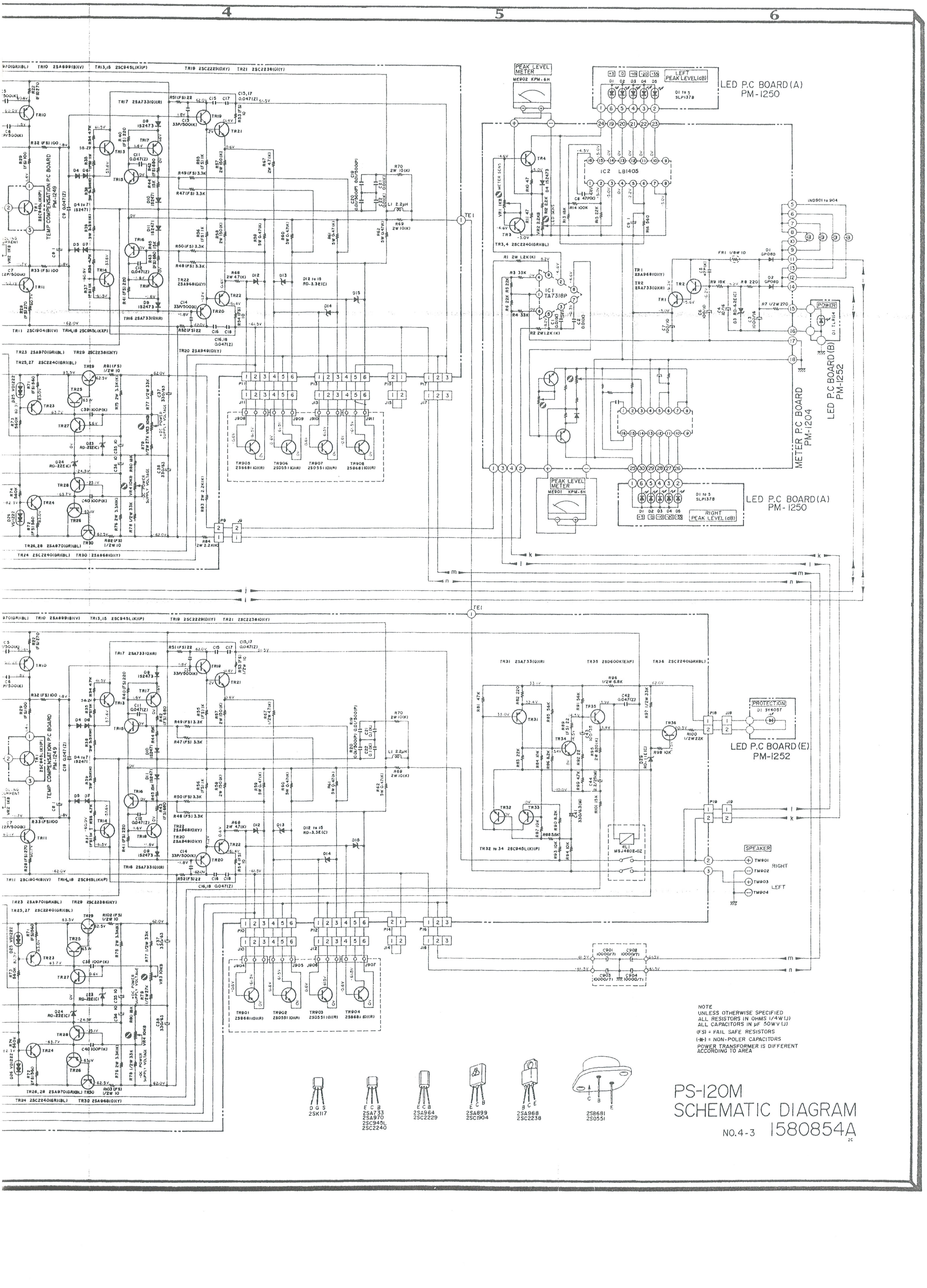
UNLESS OTHERWISE SPECIFIED;
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
(FS) = FAIL SAFE RESISTORS
(⊣|⊢) = NON-POLER CAPACITORS
POWER TRANSFORMER IS DIFFRENT ACCORDING TO AREA

PS-200C (NEW)
SCHEMATIC DIAGRAM

NO.4-2 1580853A

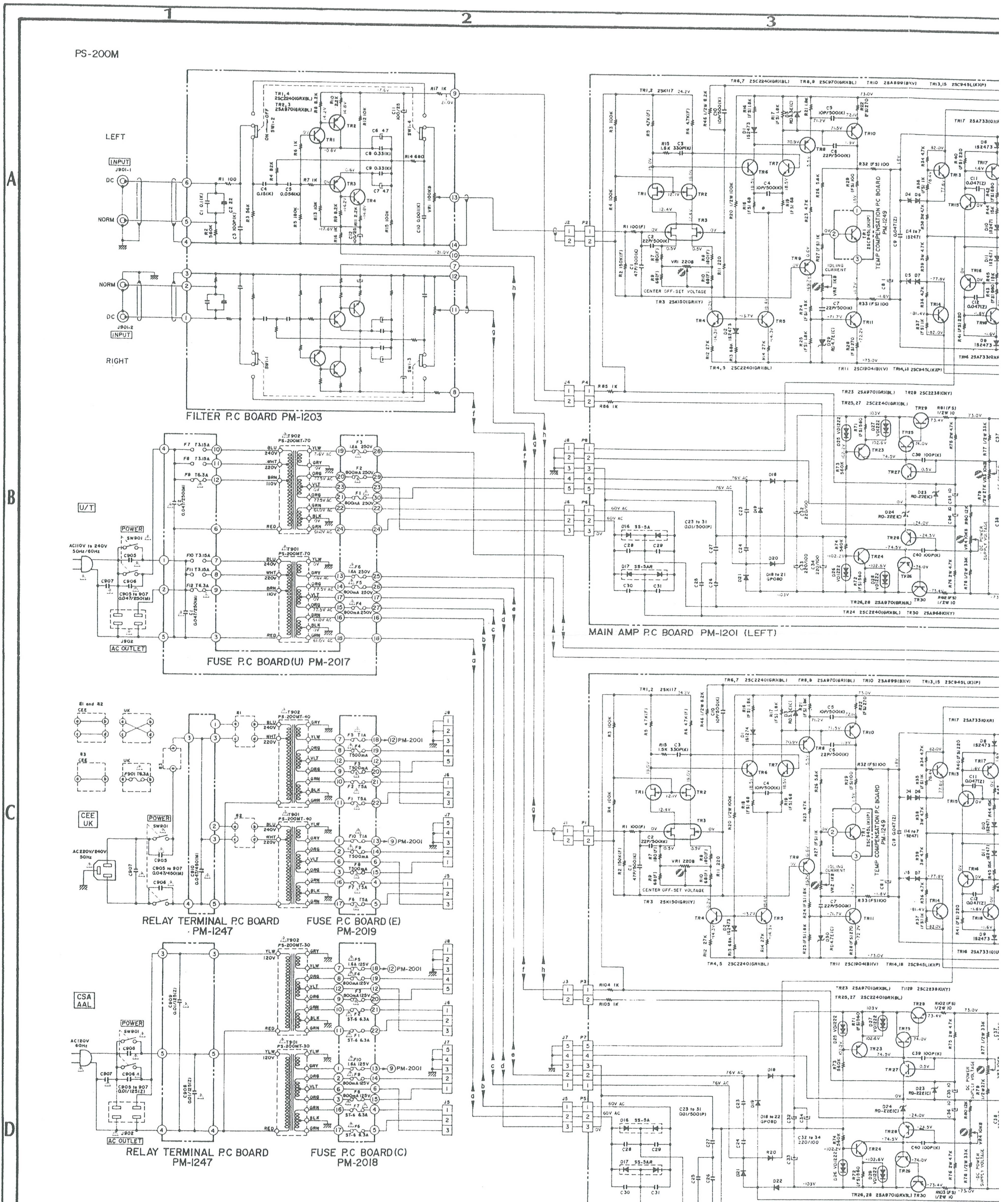
2C

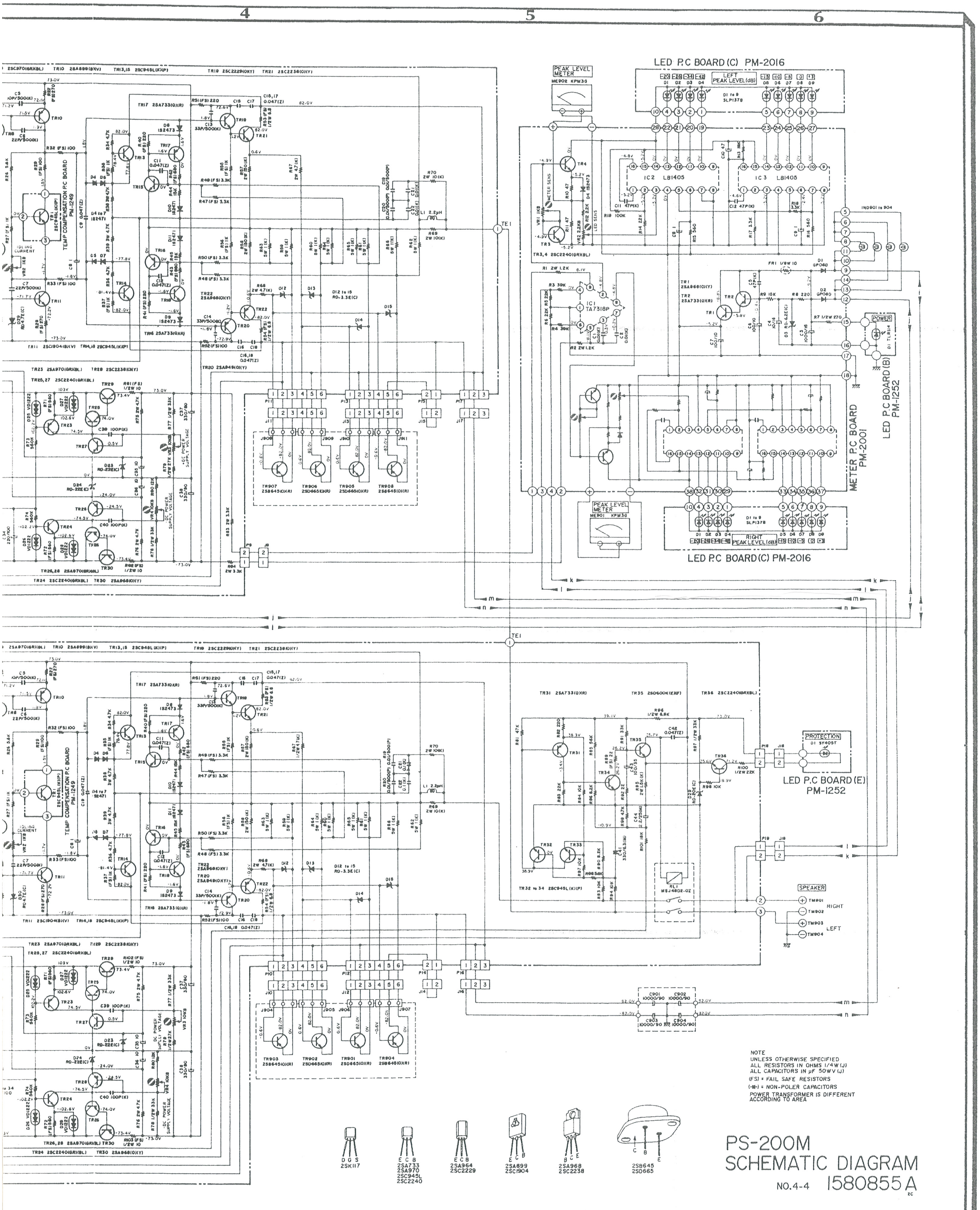

PS-120M
1
2
3
A
B
C
D
LEFT
INPUT
J901-1
DC
NORM
J901-2
INPUT
RIGHT
FILTER P.C BOARD PM-1203
U/T
POWER
SW901
AC OUTLET
J902
FUSE P.C BOARD(U) PM-1205
CEE
UK
RELAY TERMINAL P.C BOARD
PM-1247
FUSE P.C BOARD(E)
PM-1251
CSA
AAL
RELAY TERMINAL P.C BOARD
PM-1247
FUSE P.C BOARD(C)
PM-1248
MAIN AMP P.C BOARD PM-1201 (LEFT)
MAIN AMP P.C BOARD PM-1202 (RIGHT)
TEMP COMPENSATION P.C BOARD
PM-1249
CENTER OFF-SET VOLTAGE
IDLING CURRENT
+DC POWER SUPPLY VOLTAGE
-DC POWER SUPPLY VOLTAGE
T902
PS-120MT-70
T901
PS-120MT-70
T902
PS-120MT-40
T901
PS-120MT-40
T902
PS-120MT-30
T901
PS-120MT-30
AC110V to 240V 50Hz/60Hz
AC220V/240V 50Hz
AC120V 60Hz
001015


4
5
6
PEAK LEVEL METER
ME902 KPM-6H
LEFT PEAK LEVEL (dB)
+3
0
-10
-20
-35
LED P.C BOARD (A)
PM-1250
IC2 LB1405
IC1 TA7318P
TR3,4 2SC2240(GR)(BL)
TR1 2SA968(O)(Y)
TR2 2SA733(Q)(R)
IND901 to 904
POWER
D1 TLR114
LED P.C BOARD (B)
PM-1252
METER P.C BOARD
PM-1204
PEAK LEVEL METER
ME901 KPM-6H
RIGHT PEAK LEVEL (dB)
LED P.C BOARD (A)
PM-1250
TEMP COMPENSATION P.C BOARD
PM-1249
TR10 2SA899(B)(V)
TR13,15 2SC945L(K)(P)
TR17 2SA733(Q)(R)
TR19 2SC2229(O)(Y)
TR21 2SC2238(O)(Y)
TR11 2SC1904(B)(V)
TR14,18 2SC945L(K)(P)
TR16 2SA733(Q)(R)
TR22 2SA968(O)(Y)
TR20 2SA949(O)(Y)
D12 to 15 RD-3.3E(C)
TR23 2SA970(GR)(BL)
TR25,27 2SC2240(GR)(BL)
TR29 2SC2238(O)(Y)
+DC POWER SUPPLY VOLTAGE
-DC POWER SUPPLY VOLTAGE
TR24 2SC2240(GR)(BL)
TR26,28 2SA970(GR)(BL)
TR30 2SA968(O)(Y)
TR905 2SB681(O)(R)
TR906 2SD551(O)(R)
TR907 2SD551(O)(R)
TR908 2SB681(O)(R)
TR901 2SB681(O)(R)
TR902 2SD551(O)(R)
TR903 2SD551(O)(R)
TR904 2SB681(O)(R)
TR31 2SA733(Q)(R)
TR35 2SD600K(E)(F)
TR36 2SC2240(GR)(BL)
TR32 to 34 2SC945L(K)(P)
RL1 MSJ480Z-0Z
PROTECTION
D1 SY405T
LED P.C BOARD (E)
PM-1252
SPEAKER
TM901
TM902
RIGHT
TM903
TM904
LEFT
C901 10000/71
C902 10000/71
C903 10000/71
C904 10000/71
D G S
2SK117
E C B
2SA733
2SA970
2SC945L
2SC2240
E C B
2SA964
2SC2229
E C B
2SA899
2SC1904
B C E
2SA968
2SC2238
C B E
2SB681
2SD551

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)
(FS) = FAIL SAFE RESISTORS
(-||-) = NON-POLER CAPACITORS
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA

PS-120M
SCHEMATIC DIAGRAM
NO.4-3 1580854A
2C


PS-200M
1
2
3
A
B
C
D
LEFT
RIGHT
INPUT
J901-1
J901-2
DC
NORM
FILTER P.C BOARD PM-1203
U/T
POWER
SW901
AC110V to 240V 50Hz/60Hz
J902
AC OUTLET
FUSE P.C BOARD(U) PM-2017
PS-200MT-70
CEE UK
AC220V/240V 50Hz
RELAY TERMINAL P.C BOARD PM-1247
FUSE P.C BOARD (E) PM-2019
PS-200MT-40
CSA AAL
AC120V 60Hz
PS-200MT-30
RELAY TERMINAL P.C BOARD PM-1247
FUSE P.C BOARD(C) PM-2018
PM-2001
MAIN AMP P.C BOARD PM-1201 (LEFT)
MAIN AMP P.C BOARD PM-1202 (RIGHT)
TEMP COMPENSATION P.C BOARD PM-1249
CENTER OFF-SET VOLTAGE
IDLING CURRENT
DC POWER SUPPLY VOLTAGE
001020D


4
5
6
LED P.C BOARD(C) PM-2016
LEFT PEAK LEVEL(dB)
PEAK LEVEL METER
ME902 KPM30
D1 to 9 SLP137B
IC2 LB1405
IC3 LB1405
IC1 TA7318P
TR3,4 2SC2240(GR)(BL)
METER SENS
LED SENS
IND901 to 904
POWER
LED P.C BOARD(B) PM-1252
METER P.C BOARD PM-2001
PEAK LEVEL METER
ME901 KPM30
RIGHT PEAK LEVEL(dB)
LED P.C BOARD(C) PM-2016
TEMP COMPENSATION P.C BOARD PM-1249
IDLING CURRENT
TE1
TR907 2SB645(O)(R)
TR906 2SD665(O)(R)
TR905 2SD665(O)(R)
TR908 2SB645(O)(R)
DC POWER SUPPLY VOLTAGE
TR31 2SA733(Q)(R)
TR35 2SC400K(E)(F)
TR36 2SC2240(GR)(BL)
TR32 to 34 2SC945L(K)(P)
RL1 MSJ480Z-0Z
PROTECTION
D1 SY405T
LED P.C BOARD(E) PM-1252
SPEAKER
TM901
TM902
RIGHT
TM903
TM904
LEFT
TR903 2SB645(O)(R)
TR902 2SD665(O)(R)
TR901 2SD665(O)(R)
TR904 2SB645(O)(R)
D G S
2SK117
E C B
2SA733
2SA970
2SC945L
2SC2240
E C B
2SA964
2SC2229
2SA899
2SC1904
B C E
2SA968
2SC2238
C B E
2SB645
2SD665

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN µF 50WV (J)
(FS) = FAIL SAFE RESISTORS
(-⫲-) = NON-POLER CAPACITORS
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA

PS-200M
SCHEMATIC DIAGRAM

NO.4-4 1580855 A
2C